RHONDDA URBAN DISTRICT COUNCIL.

REPORT

OF

The Medical Officer of Health

FOR THE

YEAR 1911

PONTYPRIDD:
T. ARNOLD PARFITT, PRT., STATIONERY HALL.

RHONDDA URBAN DISTRICT COUNCIL.

REPORT

OF

The Medical Officer of Health

FOR THE

YEAR 1911

TREHERBERT:

I. JONES, PRINTER, ETC., STATIONERS' HALL.

RHONDDA URBAN DISTRICT.

MEMBERS OF THE COUNCIL.

COUNCILLOR DANIEL RICHARD JONES, J.P. (Chairman)
,, THOMAS EVANS (Vice-Chairman).
,, DAN DAVIES.
,, GRIFFITH EVANS.
,, WILLIAM THOMAS JONES, J.P.
,, WILLIAM PHILLIP THOMAS.
,, ALFRED GLADSTONE TRIBE.
,, WILLIAM LEWIS.
,, WALTER WILLIAMS.
,, EDWARD JONES.
,, THOMAS THOMAS.
,, JAMES JAMES.
,, WILLIAM EVANS THOMAS, M.D.
,, NOAH REES.
,, EVAN JOSHUA RODERICK.
,, RHYS SAMUEL GRIFFITHS, J.P.
,, MARK HARCOMBE.
,, DAVID WILLIAMS.
,, JOHN DAVID WILLIAMS, J.P.
,, LEWIS HOPKIN.
,, LEMUEL PRICE GRIFFITHS,
,, THOMAS GRIFFITHS, J.P.
,, BENJAMIN DAVIES.
,, WILLIAM THOMAS DAVIES.
,, EDWARD THOMAS WOOD.
,, WILLIAM HENRY MATHIAS, J.P.
,, DAVID SMITH (8 months).
,, ROWLAND HUGHES, B.D. (3 months).
,, HENRY EDWARD MALTBY.
,, DANIEL EVANS.
,, ABEL JACOB.

Clerk to the Council: WALTER P. NICHOLAS.

THE HEALTH COMMITTEE.

COUNCILLOR ALFRED GLADSTONE TRIBE (Chairman).
,, DANIEL RICHARD JONES, J.P.
,, WILLIAM LEWIS.
,, WILLIAM EVANS THOMAS, M.D.
,, RHYS SAMUEL GRIFFITHS, J.P.
,, MARK HARCOMBE.
,, LEMUEL PRICE GRIFFITHS.
,, WILLIAM THOMAS DAVIES.
,, EDWARD THOMAS WOOD.
,, HENRY EDWARD MALTBY.

OFFICIALS OF THE HEALTH DEPARTMENT.

Medical Officer of Health, Medical Superintendent of the Fever Hospitals, and School Medical Officer—

J. D. JENKINS, M.D., B.S., (Lond.), D.P.H., &c.

Assistant Medical Officer of Health and School Medical Inspector—

JOHN LAMBIE, M.D., D.P.H. (Glasg.)

School Medical Inspector—

J. W GLENTON MYLER, F.R.C.S. (Eng.) D.P.H. (Lond.)

Matron of the Fever Hospitals—

MISS ROSE E. SMITH.

Assistant Matron—

MISS MAY SHELTON.

Inspector of Nuisances—

* J. TOWY THOMAS, No. 2 District.

Assistant Inspectors of Nuisances—

No. 1 District { *WILLIAM WILLIAMS (5 months) || *DAVID JONES (7 months) }
No. 6 ,, || *GWILYM REED.
No. 3 ,, || *JAMES WILLIAMS.
No. 4 ,, || *DANIEL W. JONES.
No. 5 ,, || *LEWIS T. DAVIES.

HEALTH VISITORS—

‡†MISS MADELEINE JOHN.

§*MISS JESSIE M. JONES (6 months)
§MISS BLANCHE K. HOYLE (6 months)

Clerks—

EVAN R. JENKINS.
THOMAS J. REES.
CARADOG G. DAVID.

In charge of Disinfector.

R. J. JONES (4 months).
EDWARD TYSOE (8 months).
EDWIN HUDD.

* Holds the Sanitary Inspector's Certificate granted by the Royal Sanitary Institute.

† Holds the Health Visitor's Certificate granted by the Royal Sanitary Institute.

§ Holds the Midwives' Certificate granted by the Central Midwives Board.

‖ Holds the Meat Inspector's Certificate granted by the Royal Sanitary Institute.

‡ Holds the Sanitary Inspector's Certificate granted by the London Sanitary Inspectors' Board.

TELEPHONE NUMBERS.

Medical Officer of Health—Office	...	...	39 Pentre
,, ,, Residence	...	...	47x Pentre
Fever Hospital ...	...	...	47 Pentre
Inspector No. 1 District	...	...	3 Treorchy
,, 2 ,,	...	...	17 Pentre
,, 3 ,,	...	...	8 Tonypandy
,, 4 ,,	...	...	13 Tonypandy
,, 5 ,,	...	...	3 Porth
,, 6 ,,	...	...	2 Ferndale.

RHONDDA URBAN DISTRICT.

Area	23,885 acres.
Population (Census April 2nd, 1911) ...	152,781
Population (estimate at Mid-Summer 1911)	153,775
Rateable Value	£617,992
Birth-rate for 1911	35·7 per 1000
Average Birth-rate for 10 previous years ...	38·3 ,, ,,
Crude Death-rate (from all causes) for 1911	15·3 ,, ,,
Corrected Death-rate (from all causes) for 1911	16·8 ,, ,,
Average Death-rate for 10 previous years...	17·3 ,, ,,
Zymotic Death-rate for 1911	3·5 ,, ,,
Average Zymotic Death-rate for 10 previous years	2·9 ,, ,,
Death-rate from Phthisis (Consumption) for 1911	·73 ,, ,,
Average Death-rate from Phthisis for 10 previous years	·77 ,, ,,
Infantile Mortality for 1911 ...	164 per 1000 births
Average Infantile Mortality for 10 previous years	174 ,, ,,

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RHONDDA URBAN DISTRICT COUNCIL.

ANNUAL REPORT

OF THE

MEDICAL OFFICER OF HEALTH

FOR 1911.

To the Chairman and Members of the Rhondda Urban District Council.

GENTLEMEN,—

I beg to submit for your consideration my eleventh annual report upon the vital statistics and sanitary condition of the Rhondda Urban District during the year 1911.

Although the general death-rate for 1911,—15·3 per 1000 of the population,—is lower than any recorded in previous reports, the improvement is more apparent than real in that the actual death-rate for the previous year, corrected for the under-estimate of the increase in the population during the last intercensal period, was lower by ·7 per 1000 than that pertaining to the year now under consideration. It is nevertheless satisfactory to be able to place on record that the death-rate in 1911 is less by 2·0 per 1000 than the corrected average rate for the last ten years.

Two unsatisfactory features of the year's statistics are contributed by the large number of deaths due to the zymotic diseases and by the high infantile death-rate, both being largely dependent upon the somewhat exceptional meteorological conditions which were experienced during the summer.

It is true that many of the questions mentioned in recent annual reports as requiring the attention of the Council have been dealt with, but several long-standing problems still remain on the list. Municipal progress, supported by voluminous and far-reaching legislation, has made it possible and necessary to add to the number in the present Report.

Among the most important are the following :—

(1) The adoption of every practicable measure to expedite the completion of the Llyn Fawr Reservoir and all auxiliary works, so as to increase very materially the storage capacity possessed by the Council.

(2) The consideration of the erection of municipal slaughterhouses as authorized by your Act obtained in 1910.

(3) The extension of the scope of the provisions now being considered by you for the destruction of the house refuse of some portions of the district, so as to include the Ferndale area, where the present method of dumping cannot be much longer continued without the causation of a serious nuisance in a somewhat congested neighbourhood.

(4) The co-ordination of efforts to be made under the provisions of the National Insurance Act with the object of securing the best results obtainable from an exercise of the previous powers conferred by that Act as well as by the Public Health Act towards the reduction, and possibly the eradication, of tuberculous diseases from our midst.

(5) The exercise of certain powers conferred on the Council by the Housing, Town Planning, &c., Act, especially in the direction of improving existing houses by the direct method where owners may be in default.

(6) The application of provisions contained in one of the Council's Acts to the control of the milk supply of the district, with special reference to its influence in the causation and spread of preventible diseases.

(7) The adoption of additional, or the improvement of existing measures aiming at the efficient administration of the Shops Acts, from that of 1892 down to and including the Shops Act, 1912, which is to become operative on the 1st May, 1912.

(8) The acquisition by acceptance or purchase, of plots of land, situated in localities at present unprovided for and suitable for use as recreation grounds for the old and very young.

I am,

The Council Offices,
Rhondda.

Yours faithfully,
J. D. JENKINS.

TOPOGRAPHY.

The district, with an area of 23,885 acres, is about 12 miles long by about 4¾ miles across at its widest part. It is irregularly oval in shape, its greatest width lying between a point close to the junction of Mountain Ash, Aberdare, and Rhondda Urban Districts at Blaenllechau, and a point south-west of Gelli on the boundary between the Rhondda and the Ogmore and Garw Urban Districts. The district as a whole consists of two narrow, tortuous valleys, which gradually approach each other in their course southwards, and join at Porth, and thence the single valley so formed runs a short course before merging into the upper end of the Pontypridd Urban District at Trehafod. The two valleys, running at first at some distance from each other, together with the single valley formed by the junction of the other two, are so arranged that they resemble an irregularly-shaped Y. The stem of the Y is formed by the portion of the district extending from Trehafod to Porth and is over a mile long. The limbs, of unequal length, are formed by the Rhondda Fawr Valley, which is about 9½ miles long, and by the Rhondda Fach Valley, which is of a length barely 6½ miles. Both the valleys at their upper extremities end blindly, or form *cul-de-sacs*; their lateral boundaries are formed by steep hills, which vary in height from about 560 feet on either side of Trehafod, to 1,340 feet on the north-east of Maerdy, and 1,742 feet on the south-west of Treherbert. The Rhondda Fawr and the Rhondda Fach Valleys are separated by a steep ridge—Cefn Rhondda—which rises from a point 600 feet just above Porth to an elevation of 1,692 feet near the upper extremity of the district. The Rhondda River—formed at Porth by the junction of Rhondda Fach and Rhondda Fawr Rivers—is 240 feet above sea-level at the lowest point in the district, at Trehafod, while the Rhondda Fawr River attains an

elevation of 720 feet at Blaenrhondda and the Rhondda Fach River the still greater elevation of 920 feet at Maerdy. The highest point in the district is Carn Moesau, which is 1,950 feet high, and is situated at the upper end.

The valleys are very narrow, and allow in many places only sufficient space for river, road, and railway. Although the district is a large one, the area actually built upon is comparatively small, for the most suitable and convenient building ground is situated in more or less close proximity to the river. Here and there, however—as at Treorchy and Ton—the valleys open out a little, and it is mainly at these expansions that considerable numbers of houses have been erected. Leading out of tbe main valleys are a few side valleys, of which Cwmparc, Clydach Vale, and Cymmer are the most important.

It is interesting to note in connection with the topography of the district, the fact disclosed in the course of the year 1910 by a re-levelling of 176 bench-marks throughout the urban area by the Ordnance Survey Department, Southampton.

The levels so obtained, when compared with those taken in the year 1898, or only 12 years previously, served to show that the whole district has sunk during that period, in many localities over five feet, the maximum difference recorded being 7·95 feet in Llwynypia.

It is very noticeable that the subsidence has taken place very irregularly, the extent of the deviation from the 1898 records being often very unequal at adjacent bench-marks. Such irregular subsidence has an important bearing upon the stability and state of repair of all the buildings in the district as well as upon the maintenance of the continuity of all pipes such as sewers, drains, and water mains.

The prosperity of the district is entirely dependent upon its coal, which in its steam-raising properties, is reputed to be inferior to none.

In the census year 1901,—the details of the census taken in 1911 being not yet available,—32,625 males, or 69 per cent of all males above ten years of age in the district, were returned as being engaged in " coal and shale mining." Upon this basis it is estimated that 44,311 males above ten years of age, or 29 per cent of the total population, followed the same occupation in the year 1911.

THE SUBSOIL.

The coal-bearing strata are overlain by Pennant Sandstone, of which the large majority of the houses in the district are built. Scattered over the district are small areas of clay underlying peat, the latter being sufficiently abundant in some portions of the district to affect the colour and taste of the water. At the few expanded portions of the valleys the rivers are bounded by meadows whose soil is alluvial in character.

AREA.

The district has an area of 23,884·810 acres, and thus forms the most extensive Urban District in the County of Glamorgan, the next in size being Margam Urban District, with an area of 18,417 acres and a population of 9,014 at the last census. The Rhondda Urban District is, however, exceeded in area by seven out of the nine Rural Districts in the County.

For administrative purposes the whole of the Rhondda Urban District is divided into ten wards, the first comprising Treherbert at the upper end of Rhondda Fawr or the

larger valley and the tenth including Ferndale and Maerdy at the corresponding end of Rhondda Fach or the lesser valley.

The respective wards comprise the undermentioned localities :—

Ward 1. Fernhill,Blaenrhondda,Blaenycwm,Tynewydd, Treherbert.
Ward 2. Cwmparc, Treorchy.
Ward 3. Pentre, Ton.
Ward 4. Gelli, Ystrad.
Ward 5. Llwynypia, Clydach Vale.
Ward 6. Tonypandy, Trealaw.
Ward 7. Penygraig, Williamstown, Edmundstown, Dinas.
Ward 8. Cymmer, Porth, Hafod.
Ward 9. Mount Pleasant, Tynewydd, Ynyshir, Wattstown, Pontygwaith, Stanleytown, Tylorstown.
Ward 10. Ferndale, Blaenllechau, Maerdy.

POPULATION.

Registrar-General's Estimate 153,775.

On the night of the 3rd of April, 1911, the twelfth decennial census of the country was taken and the preliminary report thereupon was issued by the Registrar-General in June. This report, however, gives very little detail concerning either individual districts or certain subjects of interest, which are likely to be included in the more amplified reports and analyses of the census returns which are promised at a future time. The particulars relating to each district already furnished comprise area, families, or separate occupiers, the populations in 1901 and 1911, and the increase or decrease during the intervening decennium. The respective figures for the Rhondda are given as 23,885 acres, 29,434

families: 113,735 (1901), 152,798 (1911), and 39,063 (increase).

This increase in the population of the Rhondda since 1901 is equivalent to an addition of 34·3 per cent. during the intercensal period.

Comparing the rate of increase in the Rhondda with that in the other large towns in England and Wales, it is found that the following places had higher rates,—Southend-on-Sea, Ilford, Ealing, Acton, Coventry, Wallasey, Kings Norton, Northfield, East Ham, Edmonton, Luton and Willesden, with the respective percentages of increase of 117·4, 89·6, 85·4, 52·4, 52, 46·5, 42·1, 42·1, 39·1, 38·2, 37·3 and 34·4. It is noticeable that, with one exception (Coventry), all the above are appendages of and largely dependent upon other and much larger centres of population.

It is also worthy of remark that Willesden is the only urban district (as distinguished from Boroughs) in the country with a larger population than the Rhondda, and the two areas occupied a similar relative position in 1901.

One important circumstance must not be lost sight of in considering the result of the census enumeration in the Rhondda; the Cambrian Coal Strike, affecting nearly one-third of the whole area, had been in operation for several months at the time the count was made, and in consequence a considerable number of persons were temporarily absent from the district. It is not possible however to estimate this number with any degree of accuracy.

The percentage of increase in England and Wales during the intercensal period was 10·9, so that the rate of increase in the Rhondda was more than three times the average.

The Registrar-General gives interesting figures showing the predominance of the urban as compared with the rural

population of the country. This preponderance is steadily increasing, the proportions of the urban populations to the whole having been 68, 72, 77, and 78 per cent in 1881, 1891, 1901 and 1911 respectively.

For each year in intercensal periods the Registrar-General estimates the population of a district by assuming that the rate of increase or decrease found during the previous intercensal period is maintained. This method proves sufficiently accurate as a general rule, but in some cases the census figures reveal great discrepancies between the estimated and actual populations. Thus in the Rhondda, the Registrar-General's estimate at Mid-Summer 1911 was 141,475, while the actual population in April the 3rd was found to be 152,798. After allowing for the difference of three months in the time of year, it is calculated that the enumerated population was 12,300 in excess of the Registrar-General's estimate. In most Health Departments however, it is customary to make estimates of the population from other data on the basis of which the number of persons in the Rhondda in 1910 was estimated at 152,867 ; this number, although slightly excessive, was considerably nearer the actual population than the Somerset House estimate, especially when allowance is made for the exodus consequent upon the Coal Strike in Mid-Rhondda.

The cause of the under-estimation by the Registrar-General's method of calculation was the higher rate of increase between 1901 and 1911 than between 1891 and 1901, and the effect on the vital statistics relating to the district published in the Medical Officer's Annual Reports during the intercensal period is that all rates calculated on population have been recorded as higher than they actually were, the margin of error increasing year by year. Thus all birth-rates and death-rates given in those reports for the Rhondda have been recorded as higher than they were in

reality. In the present report, however, all statistics relating to the years 1902 to 1910 have been as far as possible corrected to agree with the populations now estimated to have existed in each year.

As a result of the census enumeration, a considerable number of towns have been added to the list of "Great Towns," but as statistics relating to these for the whole of the year are not available they have been omitted from the tables of comparison given in the Appendix to this report.

By virtue of the accuracy in the estimation of the population made possible by the census the Rhondda advanced to the 21st place among the Great Towns in England and Wales in point of size of population from the 24th which it occupied in 1901.

Table 1 in the Appendix gives certain statistics bearing upon the population of the district in each census year since 1801.

BIRTHS.

	1911.	Average of Ten Years. 1901-1910.
Number of Births ...	5,491	5,019
Birth-rate in Rhondda ...	35·7	38·3
Birth-rate in 77 Great Towns	25·6	28·0
Birth-rate in England & Wales	24·4	27·3

During the year 1911, 5,491 births were registered as having occurred within the Rhondda Urban District. This total is less than the total for 1910 by 137, but exceeds the average of the totals for the years 1901-1910 by 472, and is equivalent to a birth-rate of 35·7 per thousand. A glance at Table 3 in the Appendix will show that this rate is the second lowest recorded during the last 21 years, the lowest having been 35·3 per thousand in 1907. The rates given in

Table 3 are calculated on the populations for each year, corrected according to the figures obtained in the 1911 Census. It will be observed also that the birth-rate for 1911 is less than the average rate for the previous decennium by 2·6 per thousand.

The birth-rate of the country as a whole has during the last twenty years been declining gradually. In the Rhondda however the birth-rate has remained uniformly high and the comparatively low birth-rate of 1911 does not necessarily prove the existence of such a downward tendency although it is an indication that such a declension is taking place.

The Rhondda birth-rate for 1911 exceeds that of England and Wales by no less than 11.3 per thousand and that of the 77 Great Towns taken as a whole by 10·1 (see Table 4).

The "natural increase," or excess of births over deaths in 1911 amounted to 3,139, and is less than the corresponding figure for 1910 by 308.

The numbers of births in the four successive quarters of the year were, 1,465, 1,366, 1,369 and 1,263. In addition 28 births occurred outside the district of children whose parents ordinarily reside within the district, and it is impossible to allocate these to their respective quarters of the year as we have no information as to the dates of birth.

As a general rule it is found that the male births are in excess of the female and this was the case in the Rhondda in 1911, 2,787 male and 2,704 female births having been recorded.

ILLEGITIMACY.

There is an increase in the number of illegitimate children recorded as born in the district during the year as com-

pared with the number for 1910. During the year 1911, 136 illegitimate births were recorded, the numbers for the five preceding years having been respectively 101, 107, 119, 130, and 121.

The number recorded in 1911 is equivalent to a rate of 25 per 1,000 births which is greater by 4 than the rate for the previous year.

The illegitimate birth-rate for the Rhondda calculated in this way is much lower than that for the country as a whole.

A much fairer way, however, of calculating the illegitimate birth-rate is to base the calculation on the proportion of unmarried and widowed women between the ages of 15 and 45 to the total population. In the Rhondda this ratio was 7·5 per cent of the population at the census of 1901. Assuming the same proportion still to exist the number of unmarried and widowed women of conceptive age in the district in 1911 amounted to 11,533. On this basis the proportion of illegitimate births registered in the district was 11·8 per 1,000 unmarried and widowed women of conceptive age.

Estimated in this way an increase in the prevalence of illegitimacy is also shown as well as a considerable excess over the similar rate for the country as a whole. It should be observed however that the figures for the 1911 census not being yet available, this estimation of illegitimacy must be taken with due reserve.

The infantile mortality-rate among illegitimate children is invariably found to be higher than the general infantile mortality-rate. This was the case in 1911 although the difference is not so well marked as usual. In the course of the year 24 deaths of illegitimate infants occurred, this being equivalent to a mortality-rate among illegitimate

children of 176 per 1,000 born, whereas the general infantile mortality-rate for the year was 164 per 1,000 born.

DEATHS.

	1911.	Average for Ten Years. 1901-1910.
Number	2,352	2,259
Rate per 1,000 in Rhondda ...	15·3	17·3
,, ,, 77 Great Towns ...	15·5	15·9
,, ,, England & Wales	14·6	15·3

In the course of the year 2,276 deaths were registered in the Rhondda Urban District.

The number 2,352 given above is, however the number of deaths properly belonging to the district. To obtain it, the number of deaths of Rhondda residents which occurred outside the district is added to, and the number of deaths of non-residents which occurred within the district deducted from, the total number of deaths registered in the Rhondda.

Greater accuracy in the number of deaths properly belonging to the district has been secured than formerly by the fact that the Registrar-General undertook in 1911 to supply the Health Department through the County Medical Officer of Health with lists of deaths of Rhondda residents occurring outside the district.

In former years it was possible only to give the deaths of Rhondda residents which occurred in such public institutions as Cardiff Infirmary, Pontypridd Workhouse and Bridgend Asylum. Sixty-two such deaths occurred at those three institutions, 12 at Cardiff Infirmary, 21 at Bridgend Asylum, and 29 at Pontypridd Workhouse, and 32 deaths occurred at various places throughout England and Wales, so that the total number of residents who died outside the district was 94.

The nett number of deaths, 2,352, is equivalent to a death-rate of 15·3 per 1,000 per annum. This rate is the second lowest in the statistical records of the Rhondda, the lowest (14·6 per 1,000) having been recorded in 1910.

The rate of 15·3 per 1,000 is the "crude death-rate," and makes no allowance for the inequalities of age and sex distribution in the district as compared with England and Wales as ascertained by the census enumeration. To eliminate this fallacy the Registrar-General has provided each district with a "factor for correction." As that for the Rhondda obtainable from the census figures of 1911 is not yet available, that of 1·1 calculated on the basis of the 1901 census must be utilized. If the crude death-rate of 15·3 per 1,000 be multiplied by this factor for correction, the result obtained,—16·8—is the "corrected death-rate" for the district in the year now under review.

In comparing the death-rate for the Rhondda with the death-rates of the 77 Great Towns it is found that the Rhondda occupies the 41st place on the list; that is to say 40 of the Great Towns had lower death-rates than the Rhondda in 1911, whereas in 1910, this district occupied the 64th position.

Taking the 77 Great Towns as a whole we find that the general death-rate per 1,000 was 15·5, so that the Rhondda death-rate was ·2 per 1,000 lower than that of the 77 Great Towns taken collectively.

The general death-rate pertaining to England and Wales as a whole, however, was 14·6 per 1,000, or lower than that of the Rhondda by ·7 per 1,000.

The causes of death which contributed most largely to the death-rate of the district were diarrhœa, measles, heart

disease, broncho-pneumonia, convulsions, violence, phthisis, acute bronchitis, and congenital debility, with the respective totals of 313, 144, 141, 137, 116, 115, 113, 100 and 100 (Table III. in Appendix).

It should be noted here that the Local Government Board tables in the Appendix have been modified for this year, so as to bring the causes of death into line with the International List of Causes of Death, and a memorandum of instructions regarding the tables was issued by the Board. A copy of the International List was issued also, but unfortunately this was issued after the laborious work of tabulating the causes of death for the Rhondda had been completed. Table III. therefore does not conform so closely to the International List as it will do in future years.

The number and percentage proportion of the deaths divided into their respective age groups which occurred in the Rhondda during the year were as follow :—

902, or 38 per cent., under 1 year of age.
218, or 9 per cent. over 1 and under 2 years.
151, or 7 per cent., over 2 and under 5 years.
98, or 4 per cent., over 5 and under 15 years.
101, or 5 per cent., over 15 and under 25 years.
264, or 11 per cent., over 25 and under 45 years.
366, or 16 per cent., over 45 and under 65 years.
252, or 10 per cent., over 65 years.

UNCERTIFIED DEATHS.

Of the 2,276 deaths which were registered within the Rhondda Urban District during the year, 2,126 were certified by registered medical practitioners, the district Coroners held Inquests on 139, and the remaining 11 were uncertified by either Coroner or Medical Attendant.

The respective proportions of the certified deaths, inquest cases and uncertified deaths to the total number of deaths were 93·4, 6·1 and ·5 per cent.

In the case of the uncertified deaths the causes of death assigned were as follow :—

Debility and Inanition	5
Convulsions	2
Bronchitis	1
Heart Disease	1
Senile Decay	2
Total ...	11

Of the eleven cases, five were less than a day old at the time of death, three died at the ages of 3, 4, and 5 months respectively, and the remaining three were over 70 years of age.

STILL-BORN CHILDREN.

I am indebted to Mr. William Powell, the Clerk to the Burial Board, for a record of the number of still-born children brought to the three cemeteries for burial during the years 1897-1911.

Year.	No. of Still-born Children recorded.	No. of Births Registered.	Rate per 1,000 Births.	Average for 7 year periods.
1897	229	4,109	55·7	
1898	210	4,120	50·9	
1899	271	4,089	66·3	
1900	312	4,469	69·6	64·8
1901	348	4,586	75·9	
1902	333	4,937	67·5	
1903	333	4,897	68·0	

1904	...	301	...	4,860	...	61·9
1905	...	367	...	4,664	...	78·7
1906	...	323	...	4,751	...	67·9
1907	...	346	...	4,831	...	71·6
1908	...	354	...	5,454	...	64·9
1909	...	337	...	5,577	...	60·4
1910	...	321	...	5,628	...	57·0
1911	...	**292**	...	**5,491**	...	**53·2**

66·1

The statistics relating to the country as a whole which are issued periodically by the Registrar-General show that the mortality rate for premature birth has increased considerably since 1886. One explanation of this fact which has been given is that owing to increased accuracy in certification, deaths which would formerly have been recorded among the still births are now returned as due to premature birth.

This explanation is not borne out by the figures for the Rhondda during the whole period for which accurate figures are available. A comparison of the table given above with that given immediately below shows that while in the second seven-year period, the average proportion of the deaths from premature birth to the total number of births registered has increased to the small extent of 0·2, the proportion of still-births to the number of births registered has also increased during the same period and to the much greater extent of 1·3 per 1,000. The figures pertaining to 1911 alone, however, lend support to the contention, there being a considerable drop in the number of still-births recorded, and an appreciable relative increase in the number of premature births.

Year.	Deaths from Premature Birth.	No. of Births Registered.	Rate per 1,000 Births.	Average for 7 year periods.
1897	72	4,109	17·5	
1898	53	4,120	12·8	
1899	56	4,089	13·6	
1900	66	4,469	14·7	14·6
1901	74	4,586	16·1	
1902	53	4,937	10·7	
1903	84	4,897	17·1	
1904	69	4,860	14·1	
1905	62	4,664	13·3	
1906	69	4,751	14·5	
1907	68	4,831	14·1	14·8
1908	88	5,454	16·1	
1909	93	5,577	16·7	
1910	85	5,628	15·1	
1911	**85**	**5,491**	**15·5**	

INFANTILE MORTALITY.

	1911.	Average for Ten Years. 1901-1910.
Rhondda per 1,000 births ...	164	... 174
77 Great Towns	140	
England and Wales ...	130	

The term Infantile Mortality is given to the ratio which the number of deaths under one year of age bears to the total number of births.

During the year 902 deaths of infants under one year of age occurred in the district this being equivalent to an infantile mortality rate of 164 per 1,000 births. This mortality is less by 10 per 1,000 births than the average for the

previous 10 years, but is 34 per 1,000 greater than the infantile mortality pertaining to the country as a whole.

The infantile mortality is often appealed to as a test of the sanitary condition of a district but other factors have an important bearing on the infantile mortality. As a matter of fact the main responsibility for infantile mortality may be said to be shared by the mothers of a district and by the local sanitary authority. The influence of the mother is by far the greater and as far as this district is concerned we must eliminate poverty and industrial employment of mothers as factors in the causation of infantile mortality, as there is but little poverty as usually understood and practically no employment of married women in the factories and workshops of the district.

Among the influences which contribute towards the high infantile mortality of the district are the early age at which women enter into the married state, their ignorance of the principles of child-rearing, their carelessness and lack of cleanliness in the storage and preparation of food, and the high birth-rate in the district. The last-mentioned cause may not be quite so obvious in its operation as the others, but if we remember that families are as a rule large, and that in married women pregnancy follows pregnancy with little interval, it is clear that in these cases the mothers have not the time or the physical ability to give the necessary amount of attention to their infants.

Of the 902 deaths of children under one year of age in the district, no fewer than 246 were caused by diarrhœa, while gastritis and enteritis accounted for 81 more, so that the total due to acute inflammation of the gastro-intestinal tract amounted to 327, or considerably more than one-third of the total deaths under one year.

Of the remainder 153 were ascribed to Atrophy, Debility and Marasmus and 105 to Convulsions.

The deaths from diarrhœa however are the main cause of the fluctuation of the infantile mortality rate in the district from year to year, and therefore a great deal depends upon whether the meteorological conditions of the year are favourable to the production of this disease.

A great deal of consideration has been given by the Council to the high infantile mortality of the district and to the best means of reducing it. It was decided to adopt the Notification of Births Act, 1907, which came into force on the 28th of April, 1909. Two Health Visitors were appointed in May of the same year, one of whom resigned in the course of the year 1911, and another was appointed to take her place. As the two health visitors were insufficient in number to deal with the whole of the district, a selection of areas was made, the districts previously possessing the highest infantile mortality-rates over a number of years, being chosen to receive the attention of the health visitors.

The result of their labours during the year 1911, is shown in the following table:—

	No. of Births.	No. of Deaths under one year of age.	Rate per 1,000 Births.
Health Visitor's District No. 1 (Wards 1, 2, and 3)	1,461	245	168
Health Visitor's District No. 2. (Wards 6, 7 and 8)	1,613	245	152
Health Visitor's Districts Combined. (Wards 1, 2, 3, 6, 7 and 8)	3,074	490	160
Rest of Rhondda. (Wards 4, 5, 9 and 10)	2,417	412	170

The table shows that the rate pertaining to each of the health visitors' districts was lower than the rate for the remainder of the Rhondda, and that the rate for the health visitors' districts combined was lower than that for the remainder of the district by 10 per 1,000 births. This result is satisfactory, but it is too soon to come to a definite conclusion on the amount of benefit derived from the health visitors' ministrations.

There can be little doubt however that a great amount of good work is done by Miss John and Miss Hoyle. They visit the homes of the babies whose births are notified to the Medical Officer of Health at or about the tenth day after birth. They are generally well received by the mothers to whom the intelligent interest in their babies shown by well-trained and educated women undoubtedly appeals.

The health visitors make general inquiries as to the home surroundings, and offer advice on such subjects as the storage of food, general cleanliness, ventilation, removal of refuse, and other matters bearing on the well-being of the infant. They take special pains in instructing mothers in the correct feeding and clothing of the babies, and give such demonstrations as may be required. They enlarge on the paramount importance of abundance of fresh air, and in some instances prevail upon the mothers to allow their infants to sleep out of doors in the daytime and under suitable conditions, apparently with good results in the case of ailing children and with satisfaction to the mothers. They record their observations concerning the home and the surroundings of each child as well as the salient particulars regarding the child itself. They report any nuisances which may exist on the premises so that the necessary steps for their abatement may be taken. The houses are revisited as frequently as may be required in each individual case.

Table giving in detail the information obtained by the two Health Visitors concerning deaths of children under one, and of children born dead.

	Deaths of Children under one.		Still births.	
	Total number.	Per Cent. of total Cases.	Total number.	Per Cent. of total Cases.
Sex — Male	283	61	83	52
Sex — Female	183	39	78	48
Ages at Death — 0 to 12 hours ...	21	5		
12 to 24 ,, ...	12	3		
1 to 7 days ...	33	7		
1 to 4 weeks ...	63	13		
1 to 2 months ...	49	11		
2 to 3 ,, ...	35	8		
3 to 4 ,, ...	33	7		
4 to 5 ,, ...	24	5		
5 to 6 ,, ...	37	8		
6 to 7 ,, ...	22	4		
7 to 8 ,, ...	20	4		
8 to 9 ,, ...	35	8		
9 to 10 ,, ...	25	5		
10 to 11 ,, ...	29	6		
11 to 12 ,, ...	28	6		
Maturity — Mature	375	80	75	47
Maturity — Premature	91	20	86	53
Insured	157	34		
Not well from birth ...	209	45		
Previously visited by Health Visitor	316	68		
Separated from mother ...	8	2		
Breast-fed	142	30		
Partly breast-fed and partly otherwise ...	50	11		
Bottle-fed	212	46		
Spoon-fed	19	4		
Unfed	43	9		
Abnormal number of flies in house	26	5		
Insanitary condition of house	14	3		
Overcrowding	14	3	5	3
Previous deaths of 1 child under one year of age	64	14	27	17
Previous deaths of 2 children ,, ,,	38	8	17	10
Previous deaths of 3 children ,, ,,	22	5	5	3
Previous deaths of 4 or more children ,,	18	4		
Total number with previous deaths of Infants under one ...	142	31	49	30
Previous number of still born— ,, ,, 1 ...	30	6	32	20
,, ,, 2 ...	9	2	14	9
,, ,, 3 ...	1	1	13	8
,, ,, 4 or more ...	5	1	9	5
Total number with previous still-births	45	10	68	42
Abnormal condition of mother ...	114	24	76	47
Difficult birth	79	16	76	47

The circumstances attending the deaths of children under one and affecting the period antecedent thereto, are investigated with the view of ascertaining wherein the attention the baby received deviated from the advice given (if any).

In 150 or 32 per cent. of the total number of deaths the health visitors had no opportunity to influence the child's well-being owing to its death before their visit to the house (cf. table p. 21).

Information relating to 466 deaths of children under one year of age and to 161 still births was obtained throughout the year. In the case of the former 33 or 8 per cent. occurred within 24 hours of birth and 66 or 15 per cent. within the first week; 91 or 20 per cent. were prematurely born; 157 or 34 per cent. were insured; 209 or 45 per cent. were ailing from birth; 142 or 30 per cent. were entirely breast-fed, 50 or 11 per cent. were partly breast-fed and partly artificially fed, 231 or 50 per cent. were artificially fed, and no fewer than 43 or 9 per cent. were reported not to have been fed at all.

As observed in the similar statistics relating to the year 1910, it was found that a large proportion of the mothers had previously experienced similar losses of infants under one. In 1911, in 142, or 31 per cent. of the cases such previous losses had occurred. A considerable proportion of the mothers also,—10 per cent,—had previously given birth to still-born children. In 114 cases or 24 per cent. the mothers were said to have been in an abnormal state of health at or prior to the birth, and in 79 or 16 per cent. an unusually difficult labour was reported.

In comparing the information relating to the 161 still-births with that pertaining to the children born alive the

most notable features are the extent to which the proportions in the former exceed those in the latter with regard to prematurity at birth, previous occurrence of still-births, abnormal state of health of mother, and difficult labour (see table).

Comparing the statistics relating to the children who survived with those of the children who died we find that of the former 83 per cent. were breast-fed, 2 per cent. partly breast-fed, and 15 per cent. artificially fed, while of the latter 30 per cent. were breast fed, 11 per cent. partly breast-fed, 50 per cent. artificially fed, and 9 per cent. unfed.

Table of comparison between the naturally and artificially fed.

	Children who survived.				Children who died.	
	District No. 1	District No. 2	Totals.	Per-centages.	Totals.	Per-centages.
Breast-fed ...	1,065	1,151	2,216	83	142	30
Partly breast-fed	30	21	51	2	50	11
Bottle-fed ...	206	199	405	15	212	46
Spoon-fed ...	1	—	1	—	19	4
Unfed ...	—	—	—	—	43	9

The influence of the health visitors in securing compliance with the provisions of the Notification of Births Act is strikingly shown in the following table.

Table showing the extent to which the Notification of Births Act, 1907, has been complied with in the Rhondda during 1911.

	Births registered with District Registrars.	Births notified to Medical Officer of Health.	Percentage proportion of latter to former.
Health Visitor's District 1 (Wards 1, 2, 3)	1,454	1,487	102
Health Visitor's District 2 (Wards 6, 7, 8)	1,605	1,657	103
Rest of Rhondda (Wards 4, 5, 9 & 10)	2,404	1,670	69
Whole of Rhondda.	5,463	4,814	88

After due consideration of the results of the work of the two health visitors as supplied by the Medical Officer of Health in his monthly report for December 1911, the Council decided to appoint four additional health visitors, to undertake such work as is being done by those already appointed, and in addition to act as school nurses in pursuance of the provisions of the Education (Administrative Provisions) Act, 1907.

It may be mentioned here that the Council are employing other means of lessening the ignorance of the principles of child-rearing among the women of the district. In some of the newer schools rooms are set apart for instructing the older girls in household management in a practical way, and it is proposed to include instruction in the management and feeding of infants.

It is hoped that the provisions of the Housing, Town Planning, &c., Act, affording as it does greater facilities for

dealing with housing defects, will have some influence in the lessening of infantile mortality in the district.

The increase of staff recently sanctioned by the Council for the carrying out of the provisions of this Act cannot fail to have a beneficial effect in improving the sanitary condition of the district, and as a result improve the conditions having an influence on infantile mortality.

ZYMOTIC DISEASES.

	1911.	Average for the Ten Years. 1901-1910.
Total Number of deaths in Rhondda from Zymotic Diseases ...	533	372
Zymotic Death-rate for Rhondda ...	3·5	2·9
,, ,, 77 Great Towns	2·29	
,, ,, England & Wales	1·88	

Under the term "Zymotic Diseases" are grouped the following:—Small-pox, measles, scarlet fever, diphtheria, whooping cough, typhoid and other continued fevers, and diarrhœa. It will be observed that this group contains the most common as well as the most dangerous of the infectious diseases, and as the members of the group are to a very great extent preventible under ideal conditions, the death-rate from the group forms a useful index of the success of preventive measures in any district, due allowance being made for certain conditions which may affect the rate favourably or unfavourably. Thus in dealing with the zymotic death-rate for the year under review we must allow for the fact that the summer was an exceptionally hot and dry one and favourable to the occurrence of zymotic diarrhœa, as well as for exceptional prevalence of measles, which is not a notifiable disease, and therefore does not come directly under the controlling influence of preventive sanitary measures.

The zymotic death-rate belonging to the Rhondda has varied very considerably during recent years, the variation depending largely on the extent to which diarrhœa has been prevalent especially among infants and during the summer and autumn months. Thus the zymotic death-rate from the years 1901-1911 has varied from 1·6 in 1910 to 5·2 in 1901 (Table 12), In the year 1901 however as well as in some of the subsequent years deaths from enteritis and gastritis were included in the zymotic group for reasons given in each report. More recently however deaths from enteritis and gastritis have been omitted, so that in considering the figures given for the decennium 1901-1910 this fact must be kept in mind.

The zymotic death-rate for 1911 in the Rhondda was 3·5 per 1,000, this rate being greater by ·6 per 1,000 than the average of the rates for the previous decennium.

The rate also compares unfavourably with the rates for the 77 Great Towns and for England and Wales, but bearing in mind the very exceptional climatic conditions of the year and comparing the rate with those which have been recorded in the Rhondda in years with similar though less pronounced conditions it seems certain that an improvement has taken place and that a considerable part of that improvement is due to the preventive measures instituted by the Sanitary Authority, and dealt with more fully under the section on Infantile Mortality.

The diseases which in 1911 contributed most largely to the total number of deaths from the zymotic group of diseases were diarrhœa and measles with totals of 313 and 144 respectively. The rates due to both of these diseases were considerably higher than the corresponding rates for England and Wales (confer Table 13).

Wards 3 and 8, each with a zymotic death-rate of 2·4 per 1,000 showed the lowest zymotic death-rates in the district, and ward 5 the highest,—4·9 per 1,000 persons living (Table 15).

SMALL-POX.

No case of small-pox occurred in the district during the year, this being the sixth year in succession for the district to show entire freedom from this disease.

Small-pox like most other infectious diseases is one which is liable to appear in epidemic form at intervals of a number of years. Compulsory vaccination changed the character of small-pox from a disease of children to a disease of adults and at the same time considerably modified its virulence and the extent of its prevalence.

At the present time there is a growing want of faith in the protective character of vaccination, owing largely no doubt to the comparative immunity from small-pox enjoyed by the country for many years, the immunity itself being doubtless due to the as yet unexhausted preventive effects of compulsory vaccination in the last century. An increasing section of the public views with indifference if not antagonism the prosecution of steps which aim at the prevention of possibilities of the occurrence of which the unbelievers have no experience or direct knowledge. Unfortunately those responsible for some recent legislation bearing upon the practice of vaccination have given undue heed to a relatively small but active section of the community with consequent relaxation of the law relating to vaccination and the addition to the community of an increasingly large number of unprotected persons.

Objections against the practice of vaccination are usually advanced on the following grounds,—(1) that vaccination does not prevent the occurrence or diminish the spread of small-pox; and (2) that the introduction of vaccine lymph into the system is itself productive of ill-results.

With regard to the first contention, one might have expected apart from the mass of statistics opposed to, if not disproving, this view, that the unanimity of opinion amongst men and women who are constantly or repeatedly dealing with the disease of the efficacy of vaccination and the practical immunity which exists among such men and women when protected by vaccination and re-vaccination would prove sufficient evidence in a common sense sort of way, that this measure is an eminently satisfactory protection against small-pox. With regard to the second objection, it is doubtless true that in the early days of vaccination unfortunate results followed in rare instances the operation but these were due to the introduction with the vaccine of elements foreign to the essential properties of the lymph. In the modern methods of the preparation and preservation of lymph such occurrences are no longer possible and the care now excercised in the performance of the little operation itself by the vaccinators reduces to a minimum the slight risk attendant upon all abrasions of the skin however trivial in character.

MEASLES.

	1911.	Average for Ten Years. 1901-1910.
Number of Deaths	144	57
Death-rate per 1,000 Rhondda ...	·94	·43
,, ,, 77 Great Towns	·47	
,, ,, England and Wales	·36	·30

Throughout the greater part of the year there was exceptional prevalence of measles all over the country and the Rhondda suffered severely, the death-roll reaching the remarkable total of 144.

This total number of deaths has never been exceeded but a similar death-rate of ·94 per 1,000 has been exceeded in 1897 and in 1900, with mortality rates of 1·33 and 1·09 respectively. The year's death-rate from measles is greater by ·51 per 1,000 than the average of the rates for the previous decennium.

It is worthy of note that although measles is not a notifiable disease, in 1911 it accounted for nearly three times as many deaths as the three principal notifiable diseases put together. Of late years the question of making measles a notifiable disease has been seriously considered in many quarters, but the prevailing opinion is that owing to the fact that the disease is very highly infectious before its most distinctive features become recognisable, little practical good would result if notification were compulsory. On the other hand it is probable that the steps taken by the sanitary authority consequent on notification would give the disease a greater importance in the eyes of the parents, and would lead to greater care being taken of the children suffering from the disease. In this way without doubt a decreased fatality would be obtained.

It is noteworthy that recently accommodation for the treatment of cases of measles has been provided by the Metropolitan Asylums Board for residents in London, and that one of the London Boroughs, with the consent of the Local Government Board, made measles notifiable for a limited period in the course of the year 1911.

Details as to whether this experiment is satisfactory or otherwise are not yet available, and in any case we could only expect to see noticeable improvement follow notification after the lapse of some years after its introduction. It is however confidently anticipated that treatment at the hospitals will result in considerable diminution in the number of deaths from this disease, whatever may be the influence of notification on its incidence on the community. The chief means of controlling the spread of the disease availabe to a sanitary authority is by the closure of schools or departments of schools, and in this connection compulsory notification would doubtless provide us with more prompt and reliable information than that now obtainable. On the whole one feels justified in expressing the opinion that the development and elaboration of the system of exclusion of individual children or groups of children from school offers the best method of checking the spread of measles, the action in each instance being based upon information obtained from medical practitioners, the staffs of the various schools, from attendance officers, or from health visitors. In the course of the year, the infants' departments of Parc and Treorchy schools were closed on account of epidemics of measles, the former from the 25th of January to the 17th of March and the latter from the first of March to the 24th of March.

As regards local incidence it will be seen on reference to Tables 14 and 15 that Wards 2 and 6 suffered most severely with 36 and 28 deaths respectively, while no death from measles occurred in wards 3, 8, and 10.

Statistics bearing upon measles will be found in Tables 12, 13, 14, 15, and III. in the Appendix.

SCARLET FEVER.

	1911.	Average for the Ten Years. 1901-1910.
Number of cases	897	702
Number of Deaths	19	20
Death-rate per 1,000 Rhondda ...	·12	·16
,, ,, 77 Great Towns	·06	
,, ,, England and Wales	·05	·10

The prevalence of scarlet fever was considerably less during 1911 than in the previous year, the respective total numbers of notifications being 897 and 1,256. The total for 1911 however is greater by 195 than the average for the ten previous years.

Nineteen deaths occurred during the year, this being equivalent to a mortality-rate of ·12 per 1,000 of the population and to a case mortality-rate of 2·1 per cent.

The rate of incidence of the disease among the population was 5·8 per 1,000, as compared with 9 per 1,000 in 1910, and 5·8 per 1,000 in 1909.

During the year 157 cases of scarlet fever were removed to hospital, this number being only 17·5 per cent. of the cases notified. It is obvious that in a year of considerable prevalence of scarlet fever, the existing accommodation at the hospital is insufficient to justify chief reliance being placed on the hospital as a means of controlling the spread of infection.

The two pavilions provided at the hospital have however proved a great boon to the public as well as an additional means of safeguarding the public health.

The cases selected for hospital treatment comprise cases in which for business or other reasons removal to hospital is

desirable and cases in which removal is necessary on account of severity of illness, lack of adequate nursing or isolation accommodation at home, or special liability to spread infection in any way.

There was considerable variation in the incidence of the disease on the populations of different wards, as shown by the notification returns for each ward. Ward 2 suffered most severely with 286 cases notified, while Ward 10 with only 17 cases throughout the year showed the best record. (see table 19).

The ratio borne by the secondary cases to the total number of cases notified during the year was 21 per cent. as compared with 24, 24, 23, 25, 21, 23, 26, 21, 21 and 22 per cent. for the years 1901, 1902, 1903, 1904, 1905, 1906, 1907, 1908, 1909, and 1910 respectively.

It has been found in all years since the institution of systematic records that the average number of persons per house in houses infected with scarlet fever has been greater than the average per house in the district found at the time of the census enumeration of 1901.

In 1911 the average number of persons in houses infected with scarlet fever was found to be 6·5, as compared with 5·9 per house which was the figure obtained for the whole district in the census enumeration of 1901.

It should be stated here however, that judging from the records and statistics available to the Health Department, there is a probability that the average number of persons per house in the district during the year 1911 was somewhat smaller than the figure found in 1901. The figure calculated from the statistics of the year 1911 in the Health Department was 5·7 persons per house. Statistics bearing on Scarlet Fever will be found in Tables 12 to 15, Tables 19 to 25, and Table II. in the Appendix.

DIPHTHERIA.

	1911.	Average for the Ten Years. 1901-1910.
Number of Cases	126	340
Number of Deaths	21	43
Death-rate per 1,000 Rhondda ...	·14	·35
,, ,, 77 Great Towns	·15	
,, ,, England and Wales	·13	·18

In the course of the year diphtheria was at no time exceptionally prevalent in any part of the district. A total of 126 cases occurred during the year, this total being 20 greater than that for the year 1910, but still a small one for the district when compared with those of the 10 years preceding 1910.

In the year under notice there occurred 21 deaths attributed to diphtheria, this being equivalent to a mortality-rate of ·14 per 1,000 of the population. This rate is very similar to those of the 77 Great Towns and England and Wales, the Rhondda rate being less than that of the former and greater than that of the latter by the same margin,—·01 per 1,000. The death-rate for the year compares very favourably with the average of the death-rates for the previous decennium. The case-mortality for the year was 16·7 per cent., which exceeds the case-mortality for 1909 by 2·5 per cent., but is a great improvement on the case-mortalities of previous years.

Only a small number of cases were removed to hospital during the year and among the hospital treated cases no fatality occurred. The uniformly lower fatality-rates among hospital-treated than among home-treated cases, year after year is a sufficient indication of the enormous advantage of skilled nursing and constant skilled supervision in the treatment of this disease.

As regards the age incidence of the disease 65 or more than one half of the total number attacked were aged from 5 to 12 years. This age-period is to all intents and purposes the age of school attendance, and may be to some extent indicative of the influence of the schools on the spread of the disease. The greatest fatalities occurred in the first, second and fourth years of life with the respective figures of 57·1, 33·3, and 85·7 per cent. (Table 30.)

The percentage of secondary to the total number of cases notified has diminished very much since the year 1898 as shewn in the following table :—

Year.	Total Cases.	Primary Cases.	Proportion of Secondary Cases to Total.
1898 ...	883 ...	629 ...	28·7 per cent.
1899 ...	1,804 ...	1,288 ...	28·6 ,,
1900 ...	1,102 ...	855 ...	22·4 ,,
1901 ...	1,128 ...	905 ...	19·7 ,,
1902 ...	757 ...	624 ...	16·2 ,,
1903 ...	327 ...	286 ...	12·5 ,,
1904 ...	214 ...	196 ...	8·4 ,,
1905 ...	139 ...	124 ...	10·8 ,,
1906 ...	194 ...	181 ...	6·7 ,,
1907 ...	177 ...	164 ...	7·3 ,,
1908 ...	185 ...	175 ...	5·4 ,,
1909 ...	177 ...	173 ...	2·3 ,,
1910 ...	106 ...	100 ...	5·7 ,,
1911 ...	126 ...	119 ...	5·6 ,,

The incidence of diphtheria was highest in the month of January, which had a total of 21 notifications, and lowest in the month of September which had a total of 4.

As regards local incidence Wards 2 and 10 were the most implicated with 17 cases each, and Ward 6, with 3 cases had the cleanest record.

As in the case of Scarlet Fever, the houses infected by diphtheria contained a higher average number of occupants than the average for the whole district. The average number of persons per house in diphtheria-infected houses was 6·3 as compared with 5·9 persons per house found in the whole district in 1901, and 5·7 persons per house which is calculated by the Health Department to be the average number per house in the district during 1911. For further statistics relating to diphtheria see Tables 12 to 15, Tables 26 to 32, and Table II. in the Appendix.

TYPHOID FEVER.

	1911.	Average for Ten Years. 1901-1910.
Number of Cases	138	179
Number of Deaths	18	26
Death-rate per 1,000 Rhondda ...	·12	·20
,, ,, 77 Great Towns ...	·07	
,, ,, England and Wales	·06	·09

During the year typhoid fever was more prevalent in the district than it had been since 1907. In 1911, there were notified 138 cases, and there occurred 18 deaths from the disease, equivalent to a mortality-rate of ·12 per 1,000 of the population, and a fatality-rate of 13·0 per cent. The former rate is greater by ·06 than that of the country as a whole, but it is less by ·08 than the average of the mortality-rates in the Rhondda for the previous ten years.

Wards 9, 3, 4, 2, 7, 1 and 8 made the respective contributions of 5, 4, 3, 2, 2, 1 and 1 to the total of 18 fatalities. Of the number of cases notified 105, or 67 per cent., were removed to the hospital.

The excess of the number of cases in 1911 over the numbers for the previous years was due to localised outbreaks in Wards 3, 4, and 9.

The outbreak in Ward 3 was a continuation of one mentioned in my Annual Report for 1910, and is more fully dealt with at the end of this section of the present report. The outbreak in Ward 9 was in all probability the result of certain "missed" cases of the disease, that is, of cases which proceeded to a termination in recovery or death, without being recognised as cases of typhoid fever.

The outbreak in Ward 4 could not be traced to any common source, but it is interesting to note in this connection that during the summer drought, a large number of young men and boys in Wards 3 and 4 and, to a less extent, in Ward 2, suffered from an illness closely resembling typhoid fever in its initial stages, but of much shorter duration and with none of the absolutely diagnostic signs of typhoid fever. The one circumstance common to all the cases was that each one had bathed in a certain pond formed by damming up the Ton Brook. An investigation of a searching kind was instituted by the Health Department, but no cause, bacterial or other, could be discovered to account for the outbreak.

A total number of 64 cases were notified in Ward 3, 20 in Ward 4, and 18 in Ward 9.

The average number of persons per house in the houses in which typhoid fever occurred was ·9 per house higher than the average number of persons per house in the whole district calculated from the statistics of the Health Department. For further statistics relating to typhoid fever, see tables 12 to 15, 33 to 38 and II. and III. in the appendix.

THE PENTRE EPIDEMIC.

During the period intervening between the beginning of July 1910 and the end of April 1911, typhoid fever was exceptionally prevalent in Pentre, and during the months of October, November, and December of 1910 and January of 1911, the prevalence assumed epidemic proportions.

The number of cases which occurred in each month is shown in the following statement, the allocation to the various months being determined by the probable date of onset.

Year.		Month.		Number.
1910	...	July	...	4
,,	...	August	...	3
,,	...	September	...	5
,,	...	October	...	13
,,	...	November	...	13
,,	...	December	...	20
1911	...	January	...	14
,,	...	February	...	6
,,	...	March	...	4
,,	...	April	...	4
	Total	...	...	86

Of the 86 cases, 9 terminated fatally, giving a fatality-rate of 11·6 per cent. of the cases attacked.

As regards the ages of those attacked two were under one year of age, 12 were aged from 1 to 5, 27 from 5 to 15, 18 from 15 to 25, 19 from 25 to 45, and 8 were over 45 years of age.

A possibility or probability of infection of milk was found in 65 of the total number of cases, but in 21 or nearly one-fourth, no connection with a suspected milk supply could be traced.

In milk epidemics of typhoid fever, it is the usual experience to find that children, being the chief consumers of milk in any community, are those upon whom the incidence of the disease falls most heavily. In this instance however, it was only in the course of a pronounced wave of infection which occurred at the end of December 1910, and the beginning of January 1911, that numbers of very young children were found to be attacked.

Special attention was drawn early to a particular dairy by the discovery that a man who was engaged in milking and in delivering the milk and who lived on the dairyman's premises, was suffering from typhoid fever. He was at once removed to the hospital. A list of the dairyman's customers was obtained, and all local medical men were supplied with a copy, and were urged to pay particular attention to cases of illness at any of the addresses contained therein.

Another employee, a young man who had slept in the same bed with the patient, complained of feeling ill at the same time, and although there were no symptoms of typhoid fever in his case, he was at the request of the Health Department removed from the dairy premises.

There remained only two people resident on the premises or engaged in handling the milk,—namely, the dairyman and his housekeeper. Both were questioned closely as to previous illnesses. The housekeeper denied having had any illness except the usual ailments of children. The dairyman, however, said he had suffered from a severe illness in the year 1909, which necessitated his remaining in bed for 5 weeks in the months of October and November, and culminated in the opening by his medical man of a large abscess in the lumbar reigion. He had remained more or less an invalid since, and was in addition subject to severe bronchitic attacks and emphysema of the lungs.

A sufficient time for the incubation period of the disease to elapse after the removal of the patient mentioned above to hospital had to be allowed before the continued infection of the milk supply could be established.

It was also discovered that a supplementary water supply was being employed at the dairy ostensibly for the purpose of washing out the cowshed. This water supply consisted of a small pump connected with a well and as the position of the well was unsatisfactory, the use of the water from this source was discontinued.

There seemed little doubt at the time that the water from this pump was the real source of infection, especially as the successive crops of cases seemed to point to the intermittent contamination of the milk by the water.

After the stoppage of the pump supply there was a distinct and coincidental falling off for a time in the number of notifications received.

During the month of December, although another person employed by the dairyman had contracted typhoid fever, it was found that nearly every fresh case which occurred was connected with a previous case in such a way that there was an easy explanation of the fresh infection.

A house-to-house inspection of the houses on the milk supply was undertaken during the first few days of January 1911 by the Medical Officer of Health and the Assistant Medical Officer. It was established as a result that many cases had previously been "missed" or concealed, the public in many instances having refrained from calling in a medical man with the object probably of avoiding the steps to secure isolation taken by the Health Department.

This opinion regarding several of these cases was confirmed by the Widal blood test or by the fact of another case occurring which could have no possible connection with the

milk supply in question. At the same time circulars were distributed at every house in the implicated district to warn householders not to drink water or milk which had not been previously boiled. In the meantime the dairyman above referred to severed all direct connection with the business and took up his abode elsewhere. It was, however thought advisable, as an additional precaution for the future, to have his excretions examined to ascertain whether he was harbouring the causal germs of typhoid fever. Before the results could be obtained the dairyman was himself taken ill with typhoid fever from which he died later. This occurrence led to a renewal of the investigation concerning the housekeeper with the results below mentioned.

In reviewing the history of the epidemic several circumstances stand out conspicuously. Although twelve cases had occurred at Pentre at intervals during July, August and September and had led to specially-directed but inconclusive inquiries, it was not until October that the prevalence was such as to arouse the suspicion that some exceptional factors were concerned in its causation in that locality. Special investigation led to the belief that milk was instrumental in the distribution of the disease, and, on further inquiry, a supplementary water supply in use at a particular dairy became suspected of being the source of infection. Steps were immediately taken to prevent its further use, and, on the 12th of October, this end was secured by sealing the pump by means of which the water was raised. A sample of water from this source was examined at a later date, and the bacterial content of the sample was in the words of the bacteriologist "strongly suggestive of sewage contamination." The seal on the pump was periodically examined and was always found intact and the possibility of this water being a causative factor in the history of the epidemic may be excluded from the above date.

A similar examination was made of the milk, which was declared by the bacteriologist as "not showing evidence of serious centamination."

Special attention was given to the inmates of the dairy, the personal history of each being inquired into; at an early date one of the men engaged at the dairy was removed to the hospital where he was long confined with a severe and typical attack of the disease. Specimens of the blood of the remaining inmates were subjected to the Widal reaction with negative results. The personal history of the owner of the supply led to the adoption of special measures and he was induced to live elsewhere and to take no share in the business of the milk supply.

In the meantime investigations concerning the only remaining original inmate of the dairy were renewed, and led to the extraction of the information,—which had not previously been furnished although probably not wilfully withheld,—that in May and June of 1909 she (the housekseper) suffered from an illness of an indefinite character for about six weeks, during which she was obliged to keep to her bed "off and on", but only for 4 consecutive days continuously. She was not medically attended and her symptoms consisted of great weakness, loss of appetite, some sickness, dryness of the mouth, thirst, "dark green" coating of the tongue, and some delirium at night. There were no exceptional symptoms referable to the abdomen or intestines.

At the time of inquiry she was 42 years of age, single, in the enjoyment of good health, and her general appearance was indicative of robustness and vigour to an unusual degree. As previously stated, the application of the Widal test had given negative results. On renewing the inquiries however, her dejecta were twice obtained and submitted to the Local Governmant Board for examination with positive results.

On renewal of the pointed inquiry, full and detailed instructions were given to her by the Medical Officer of Health with regard to her handling of all foods, and on receipt of confirmation from the bacteriologist she ended her direct connection with the milk supply, and soon afterwards left the district.

The great lesson to be learnt from this epidemic is that the typhoid "carrier" is extremely dangerous when his or her occupation includes the handling of milk or other food for human consumption. A great deal of work has recently been done, especially in Germany, in investigations concerning typhoid carriers. Usually the carrier has previously suffered from typhoid fever and continues to discharge the germs of the disease in his excreta for an indefinite time, but it is stated that "carriers" are met with who have never suffered from the disease, but who have taken the specific bacillus into their systems where it multiplies and is discharged in the excreta.

It is obvious that the best way to deal with "carriers" with the view of preventing possible harm to others arising from their existence, is to systematically examine the excreta of all convalescent typhoid patients bacteriologically so as to find out when in each case the patient ceases to become a danger to the public.

If every typhoid patient all over the country were thus dealt with, it is probable that typhoid fever would soon be almost or quite eliminated from the notification returns. Our present-day knowledge of the mode of infection in typhoid fever is probably greater than of any other infection, and as improved water supplies, sewage disposal, and a higher standard of cleanliness have already greatly reduced its incidence, there seems to be a possibility of stamping out the disease by the adoption of other measures which suggest

themselves as a result of recent researches. At present various circumstances stand in the way. In the first place we have no statutory powers to deal with chronic carriers, so as to lessen their liability to spread the disease. In the second place, the present facilities for bacteriological examination would be quite inadequate for the work of examining at intervals the excreta of all patients convalescent from typhoid fever.

It has been suggested that the "carrier" question might be dealt with by legislative measures, providing for the exercise by local authorities of a certain amount of restraint in regard to the actions of typhoid "carriers," the obtaining of material from time to time as long as the condition might continue, and the adoption of such measures as might prove necessary or desirable for the protection of the public, including the power to maintain these unfortunate persons under certain circumstances.

As the condition is not amenable to any form of treatment at present known and as it appears to be capable of continuing to be a source of danger for years, the provision referred to would involve a considerable expenditure and a certain amount of curtailment of personal liberty for a prolonged period. But such disabilities of the few would be infinitely preferable to the disablement if not the death of many, such as many typhoid "carriers" are believed to have unwittingly caused.

In the case of the woman concerned in the Pentre epidemic, her connection with the handling of the milk was stopped and she was given compensation by the Council under the terms of a clause in a private Act obtained a few years ago. She was warned of the danger of taking any part of the handling of food for human consumption and

was required to keep the Medical Officer of Health informed of her address as long as she remained in the district.

When she left the district, the Medical Officer of the district to which she went was informed by letter of the facts of the case.

CEREBRO-SPINAL FEVER.

No case of this disease occurred in the district during the year. Information regarding several suspected cases however, was received by the Health Department, but on investigation each case proved to be some other acute disease. It is worthy of mention here, that in December 1911, the Local Government Board issued a circular and memorandum relating to Cerebro-Spinal Fever and to another disease, viz.: Acute Poliomyelitis. Local outbreaks of the latter disease occurred in several parts of England during the year, and owing to the resemblance in symptoms, the disease was at first thought to be Cerebro-Spinal Fever.

Acute Poliomyelitis is familiar to most medical men in the form of Infantile Paralysis, but outbreaks of the disease affecting adults as well as children, and suggesting an infective agent are a new feature in this country. The occurence of outbreaks during 1911 is attributed by some to the tropical summer and the accumulation of dust on the roads. It has been observed in other countries that the incidence of the disease in its epidemic form has advanced *pari passu* with the increased use of the motor-car.

The Local Government Board suggest that in the interest of the public health both diseases should be made notifiable, so that the Council and the Medical Officer of Health may

have the earliest possible opportunity of dealing with cases when they occur. Cerebro-Spinal fever became notifiable in this district with the sanction of the Board on 1st April, 1910.

WHOOPING COUGH.

	1911.	Average for Ten Years. 1901-1910.
Number of Deaths ...	... 18	41
Death-rate per 1,000 Rhondda	... ·12	·31
,, ,, 77 Great Towns	... ·24	
,, ,, England and Wales	·21	·27

No death from this cause was registered during April, but each of the other months of the year claimed at least one victim. We may, therefore, assume that the disease was not at any time during the year absent from the district.

In the course of the whole year 18 deaths from whooping cough occurred in the district, this being equivalent to a mortality-rate of ·12 per 1,000 of the population. This rate is considerably less than that of the country as a whole.

In Wards 2 and 6 no fatality from whooping cough occurred throughout the year. Ward 10 had the heaviest mortality with 5 deaths. Of the total number of fatal cases 8 were under one year of age, and the remainder were under 5 years. Since the greatest fatality invariably takes place among children of tender years it is very desirable that these should be protected from the danger of infection as far as possible. Unfortunately, as is the case with other non-notifiable diseases, parents are inclined to treat the disease lightly, and children in an infectious condition are allowed

to mix with other children in the streets, and are even taken by their parents into public buildings and vehicles, evidently with no knowledge of, or regard to, the danger to others.

DIARRHŒA.

	1911.	Average for Ten Years. 1901-1910.
Number of Deaths	313	185
Death-rate per 1,000 Rhondda ...	2·03	1·42
,, ,, 77 Great Towns	1·31	
,, ,, England and Wales	1·06	·55

In the course of the year 313 deaths were ascribed to diarrhœa, equivalent to a mortality-rate of 2·03 per 1,000 of the population of the district. This mortality-rate is greater than the average of the mortality-rates for the district for the previous ten years by ·61 per 1,000, and is greater than the diarrhœa mortality-rate for the country as a whole.

The exceptionally high mortality-rate for the year may be attributed to the remarkably hot and dry summer. The meteorological conditions during the summer and autumn were such as have always been accompanied by a high diarrhœa mortality. Long periods of drought and intense heat ruled throughout the summer. It has been observed that the diarrhœa mortality "curve" follows the "curve" of the earth temperature taken at a depth of 4 feet; that is to say the maximum death-rate from diarrhœa occurs immediately after the temperature of the earth at 4-ft has reached its maximum height. A glance at Table 40 in the Appendix will show that this was the case in 1911 and in this connection it may be observed that the 4-ft. earth temperature remained for an unusually long time at the high temperature of 60.°

Examining the age periods at which fatal cases of diarrhœa occurred as shown in Table III. in the Appendix it will be seen that although the great majority—246—occurred in the first year of life, a considerable proportion occurred in the second year.

The statistics shown in the table bear out what has been repeatedly shown before, that diarrhœa is not often fatal unless in the first years of life and to a lesser extent in the enfeeblement of old age. It is obvious therefore that attempts to secure a lessening of the mortality from diarrhœa must be directed towards the protection of very young children. Here we may consider the steps which may be taken towards the prevention of diarrhœa mortality together with the circumstances peculiar to the district affecting the death-rate from this disease.

The feeding of infants.—It has been proved many times that breast-fed infants suffer very much less from diarrhœa than those fed atificially. Many women are of course unable to feed their babies in this natural manner but a great many who could do so prefer to feed their children artificially simply for the sake of convenience and to save trouble. It has been frequently observed, in other districts, that in times of stress breast-feeding of infants is more the rule and mortality from diarrhœa is less than in times of plenty; that is to say, when women who can feed their infants in the natural manner are compelled by stress of circumstances to do so, the infantile mortality is lessened. Thus an obvious method of lessening the diarrhœa mortality is to persuade as many mothers as possible to feed their children on the breast, and to this end the health visitors give much attention.

Where children are artificially fed the greatest care is necessary, not only in the selection, but also in the preparation

and storage of the food. Cows' milk is the most readily available substitute for mother's milk but as it differs somewhat in composition there is required some modifica- which should be carried out under the directions of one possessed of special knowledge.

The milk supply of the Rhondda consists mainly of milk carried by rail from outside the district. There are comparatively few cow-keepers in the district and the total number of cows kept is small. It can be confidently stated that the amount of fresh milk supplied to the district is inadequate for the needs of the population, although it may be equal to the demand owing to the extensive use of substitutes such as the various forms of condensed milk and artificial foods. Much harm is believed to be caused, especially to infants of tender years, by the careless and indiscriminate use of these preparations, it being not infrequently found that babies are fed on the condensed form of skimmed milk, the children being thus fed with a food that not only lacks one of the most important constituents of whole milk but also often contains excess of other ingredients to the detriment of the babies fed upon them.

The method of storage of milk is a factor of great importance. It has been bacteriologically proved that flies are capable of carrying disease germs and depositing them on articles of food. The many scavenging refuse tips in the district afford breeding grounds for flies, and excessive numbers of these have been noticed in the immediate neighbourhood of some of the refuse tips, hence the great danger of allowing milk and other foods to be exposed to the contaminating influence of flies.

The *water supply* of the district proved insufficient for the needs of the community during the summer and for considerable periods a restricted supply was necessarily given

even in the Council's water area, where however a daily supply for a limited period could be relied upon. These conditions led to the causation of circumstanses which are in themselves detrimental to the preservation of health such as the accumulation and distribution of dust, difficulty in maintaining domestic and personal cleanliness, the stagnation of sewage in drains and sewers, the failure to cleanse back yards, the necessity to obtain water from contaminated sources, and others of a similar character. The unfavourable influences of all these factors are much accentuated in the case of babies who are the first and most affected by them.

Sanitation without doubt has an effect on diarrhœa mortality. Wherever we find a population crowded together on a small area, where for instance the drainage is defective, we may expect that harmful germs will accumulate in the soil, poison the air, and give rise to diarrhœal diseases.

Drainage in the Rhondda is on the whole satisfactory, although in certain areas owing to the natural conformation there is a liability to back-flow from the sewers in very wet weather.

It is found by the sanitary inspectors that in a considerable number of houses the paving of yards is unsatisfactory and that the cementing of the wells of yard gullies is often dilapidated. This means that a great deal of slop water finds its way into the soil under the paving stones and becomes a source of serious nuisance in hot weather. Such yards are dealt with under the powers conferred on the Council by the Public Health and other Acts, but it must be remembered that in this district there is a special liability to this condition owing to the frequency with which subsidence from colliery underground workings takes place.

Prior to 1909 literature relating to the proper way of

rearing infants was handed to each mother on the registration of her newly-born infant by Mr. George Williams, the Registrar of Births for the Ystradyfodwg part of the district. This practice was begun in 1902 and discontinued from the 30th of June, 1909, on the appointment of two health visitors by the Council, Below is given a table showing the number of deaths from diarrhœa of infants under one in Ystradyfodwg and in the rest of the district.

	Sub-District.	No. of Births.	No. of Deaths of children under one from diarrhœa	Death-rate per 1,000 Births.
1901	Ystradyfodwg	3,599	267	74
	Rest of District ...	987	57	58
1902	Ystradyfodwg	3,880	85	22
	Rest of District ...	1,057	23	22
1903	Ystradyfodwg	3,789	81	23
	Rest of District ...	1,108	21	19
1904	Ystradyfodwg	3,819	178	46
	Rest of District ...	1,041	33	31
1905	Ystradyfodwg	3,687	123	33
	Rest of District ...	977	49	50
1906	Ystradyfodwg	3,824	161	34
	Rest of District ...	927	29	31
1907	Ystradyfodwg	3,854	104	27
	Rest of District ...	981	19	19
1908	Ystradyfodwg	4,343	281	65
	Rest of District ...	1,111	38	34
1909	Ystradyfodwg	4,405	144	33
	Rest of District ...	1,172	30	26
1910	Ystradyfodwg	4,381	74	17
	Rest of District ...	1,247	20	16
1911	Ystradyfodwg	4,277	200	47
	Rest of District ...	1,214	46	38

NOTE—No cards issued in 1901.

Cards distributed in Ystradyfodwg only in the years 1902—9 (8 years).

Distribution discontinued from the 30th June, 1909.

The average difference between the rates of the two areas during the years of non-distribution was 8·6 per 1,000 in favour of the "rest of the district" while the average difference in favour of the "rest of the district" during the 8 years of distribution was 6 per 1,000. These figures may be taken as being an index of the value of the information thus provided in educating mothers, but in 1909 the Council after careful consideration of the matter decided to appoint two health visitors for the purpose of giving personal instruction to the mothers in parts of the district selected on account of previous high infantile mortality. The adoption of the Notification of Births Act made this practicable at an earlier date. At the close of the year 1911, a report favourable to the influence of the health visitors on infantile mortality and diarrhœal diseases was presented to the Council and at the time of writing 4 additional health visitors have been appointed. The six health visitors will in future undertake the work of school nurses in addition to their work in the direction of the prevention of infantile mortality, but the whole of the urban area will now come under their influence.

Below is given a table showing the vital statistics relating to diarrhœa, enteritis and gastritis, in the health visitors' districts and in the rest of the district. Any discrepancy between this table and the vital statistics given in the tables in the Appendix, is due to the fact that transfers of "Residents" or "Non-Residents" have not been made as regards this table.

Districts.	Births Notified.	Births Registered.	Deaths from Diarrhœa under one year of age.		Deaths from Enteritis under one year of age.		Deaths from Gastritis under one year of age.		Deaths from Diarrhœa, Enteritis, and Gastritis.	
			Number.	Rate per 1,000 births registered.	Number.	Rate per 1,000 births registered.	Number.	Rate per 1,000 births registered.	Number.	Rate per 1,000 births registered.
Health Visitors' District No. 1. (Wards 1, 2 & 3.)	1,487	1,454	52	38	14	9	19	13	85	58
Health Visitors' District No. 2. (Wards 6, 7 & 8.)	1,657	1,605	59	39	23	13	4	2	86	54
Remainder of District. (Wards 4, 5, 9 and 10.)	1,670	2,404	134	57	9	3	12	4	155	64
Rhondda ...	**4,814**	**5,463**	**245**	**45**	**46**	**8**	**35**	**6**	**326**	**60**

The figures show a striking testimony to the beneficial effect of the services of the two health visitors engaged during 1911, which is the period covered by the table. The improvement is most marked in relation to the diarrhœa mortality, but if other intestinal diseases such as gastritis and enteritis be added, the general effect is the same though to a reduced extent.

In addition to the appointment of Health Visitors, the Council have recently appointed 5 additional Sanitary Inspectors for the purposes principally of the Housing, Town

Planning, etc. Act. Parliamentary powers have been obtained and sites secured for destructors to supersede the present means of refuse disposal. These steps cannot fail to produce a better sanitary condition in the Rhondda, and will tend towards the reduction of the incidence of diarrhœa on the population.

Special steps taken in consideration of the remarkably hot and dry summer.

As the summer advanced and it became obvious that a heavy diarrhœa mortality would ensue, special instructions were given the health visitors to devote as much time and energy as possible to the prevention of diarrhœa. They were instructed to pay special attention to the question of food storage and to impress on mothers the necessity for securing medical aid early in case of illness. A more free use of the literature at their disposal was also enjoined, and more frequent re-visits were made.

PUERPERAL FEVER.

	1911.	Average for Ten Years. 1901-1910.
Number of Cases	12	23
Number of Deaths	8	12
Death-rate per 1,000 Rhondda ...	·05	·09

During the year 12 cases of puerperal fever were notified and resulted in 8 deaths which give a death-rate of ·05 per 1,000 of the living population.

Comparing the average death-rate of the last decennium with that of the decennium immediaiely preceding we find that the former is less than the latter by ·06, the respective figures being ·09 and ·15 (Table 42).

There still seems to be a certain amount of difference of opinion among medical men as to what conditions should be included under the term "puerperal fever," and this difference of opinion is conducive to laxity in notification as well as to a lessening of the value of comparative statistics as far as this disease is concerned.

Puerperal fever has been defined by the Royal College of Physicians of London, as including "septicæmia, pyæmia, septic peritonitis, septic metritis, and other acute septic inflammations in the pelvis, occurring as the direct result of child-birth."

It is highly probable that many of the less severe cases coming within this category are not notified.

The Medical Officer of Health for the County of Glamorgan has from the beginning carried out the necessary supervision in connection with cases of puerperal fever on behalf of the County Council which is the supervising authority for the whole of the Administrative County of Glamorgan.

The Health Department of the Rhondda Council however, carries out certain duties under the Act, especially in connection with the disinfection of clothing, instruments and persons, of midwives in attendance on notified cases of puerperal fever.

Many cases of puerperal fever have in the past been due to the ignorance of totally untrained women practising as midwives. Owing to the operation of the Midwives Act, 1902, however, it is probable that in a few years the untrained midwife will be entirely non-existent.

It may be mentioned in this connection that the adoption of the Notification of Births Act and the appointment of

health visitors in this district have brought the Health Department more closely in touch with the midwives of the of the district than in former years.

PHTHISIS (PULMONARY CONSUMPTION).

	1911.	Average for Ten Years. 1901-1910.
Number of Deaths	113	101
Death-rate per 1,000 Rhondda ...	·73	·77

The total number of deaths which occurred in the district from consumption was identical with the number which occurred in 1910.

The number of deaths amounted to 113 and gave rise to a mortality-rate of ·73 per 1,000, which rate is greater by ·04 than the average of the consumption mortality-rate for the previous decennium.

The incidence of the disease upon the various classes of the community is shown in Table 44, according to which, 31 persons engaged in colliery work and therefore exposed to an exceptional degree to the influence of coal dust, died from the disease in the course of the year.

The proportion of persons found to be employed in colliery work to the general population of the district, as ascertained by the census of 1911, has not yet been made known, but if it be assumed that this proportion remains the same as in 1901, then the 31 deaths among this section of the community is equivalent to ·70 per 1,000 of the 44,311 mining population. It is remarkable that this rate is lower by ·03 than that for the whole community, but these figures must be taken with the reserve that in all

probability the proportion of persons engaged in coal-mining has considerably altered since 1901.

There occurred 18 deaths each in Wards 3 and 10; 16 in Ward 2; 13 in Ward 9; 10 each in Wards 4 and 5; 8 each in Wards 6 and 7, and 6 each in Wards 1 and 8.

The Public Health (Tuberculosis) Regulations 1908.

These Regulations, which came into force on the 1st of January, 1909, provide for the notification of cases of pulmonary tuberculosis in "poor persons," i.e. persons who are in receipt of relief from the poor rate, to the Medical Officer of Health for the district in which the poor person lives.

The number of notifications received under these Regulations during the year was 26, as compared with 5 received during 1910, and 13 during 1909. Thus the total number received during the 3 years the Regulations have been in operation was 44, a surprisingly low figure, considering the size and population of the district.

The character of the notifications received during 1911 is shown in the following Statement.

Character of Notification.	No. Received.
Notifications by Medical Officers of Poor Law Institutions (Form A)	18
Notifications by District Medical Officers (Form B)	3
Notifications by Superintending Officers of Poor Law Institutions (Form C)	4
Notifications by Relieving Officers (Form D)	1
Total	26

The Public Health (Tuberculosis in Hospitals) Regulations, 1911.

In the course of the year further regulations were issued by the Local Government Board extending the system of

notification to cases occurring amongst in-patients or out-patients at Hospitals or other similar institutions for the treatment of the sick, which are supported wholly or partially otherwise than by contributions of the patients, and otherwise than from rates and taxes.

As no such institutions treating pulmonary tuberculosis or with out-patient departments exist in the Rhondda, no notifications have been received pursuant to these Regulations.

Compulsory Notification of Pulmonary Tuberculosis.

In November 1911, The Local Government Board issued a General Order containing a set of regulations made in pursuance of the powers given by Section 139 of the Public Health Act, 1875, as amended by the Public Health Act, 1896, and providing for the compulsory notification by medical practitioners and school medical inspectors, of all cases of pulmonary tuberculosis met with in their practice, to the Medical Officer of Health of the district in which each patient resides.

The Regulations also provide for the provision of facilities for the detection and prevention of the spread of pulmonary tuberculosis, by the Council through, and on the advice of, their Medical Officer of Health. These Regulations give, in effect, power to the Council to provide medical treatment, in institutions or in their own homes, to patients suffering from pulmonary tuberculosis, and they also provide for the appointment of such additional officers as may be required.

The immediate effect of the three sets of regulations will be that all persons known to be suffering from consumption, will be brought immediately under the notice of the Medical Officer of Health, who will take all necessary steps to prevent the spread of the disease, and will provide such advice and assistance as may be authorized by the Council.

In Wales it will be advisable for each Local Authority to adopt a scheme to secure the co-operation of the statutory and voluntary bodies concerned in the crusade against consumption.

The bodies having statutory powers to furnish treatment to cases of consumption are the various local authorities, boards of guardians, and the insurance commissioners under the Insurance Act, 1911, while the principal voluntary body in Wales is the Welsh National Memorial Association. It is obvious that to avoid overlapping, and to secure to the consumptive patients the utmost value for the total expenditure, a co-operative scheme is necessary.

It is also apparent that the success of such a scheme depends more upon the local authority than upon any other body, since they alone receive through their medical officer, notification of each case of consumption, and their statutory powers are more extensive than those possessed by any other authority or persons.

In addition to the co-operation of the public bodies concerned, the hearty good-will of the medical faculty in general towards the scheme, will be a great help towards its success. With such a scheme in operation, no consumptive patient in Wales will, it is hoped, lack a chance of recovery through want of means or of help at a time when such help is all-important.

The General Order of November, 1911, and the Regulations made thereunder, came into operation on the 1st of January, 1912, so that their administration does not come within the scope of the present Report.

INFLUENZA.

	1911
Number of Deaths	9
Death-rate per 1,000 Rhondda	·06

As far as can be ascertained from the death returns, influenza seems to have been less prevalent in the district than in recent years. During the year 1911, 9 deaths occurred, as compared with 14 in 1910 and 28 in 1909.

Ward 10 contributed 4 of the fatal cases; Ward 9, 2; Wards 5, 6, and 8, 1 each; and no death occurred from this cause in Wards 1, 2, 3, 4, and 7.

COLLIERY FATALITIES.

Number, 51—equivalent to a death-rate of ·33 per 1,000. No colliery disaster involving the loss of many lives occurred in the district throughout the year. The 51 deaths which occurred were due to minor causes such as falls of roof. This total is perhaps slightly lower than the annual average total of fatalities pertaining to the district from such minor causes, but it must be borne in mind that a large number of men were idle during the greater part of the year owing to labour disputes (cf. Table 45).

INQUESTS.

Total, 139—equivalent lo a death-rate of ·90 per 1,000.

If the accidents associated with the collieries be excluded, the number falls to 88, or ·57 per 1,000 (Table 45).

THE TYNTYLA ISOLATION HOSPITAL.

Accommodation. In the course of the year the available accommodation for patients was augmented by the provision of new beds and furniture. The usual allocation of beds for the treatment of different infectious diseases is now as follows :—

	Ordinary Beds.		Observation Beds.
Diphtheria	20	...	2
Typhoid Fever	20	...	2
Scarlet Fever	34	...	2
Totals	74		6

There is, in addition, accommodation at the old hospital for ten cases. In the case of each disease 2 beds can be used for observation without bringing the patients into close association with the patients in the main wards. The accommodation in the old hospital can be used and in fact has been used for the purpose of isolating cases of mixed infection. As the old hospital contains a number of small wards with no direct communication it is well adapted for this purpose.

The total number of patients received into and treated in the hospital in the course of the year amounted to 276, whereas the numbers for the five preceding years were 231, 87, 167, 198, and 324, respectively.

The following table furnishes a summary of the number of cases treated, the number of deaths, and the fatality in respect of each of the diseases treated at the hospital during 1911.

	No. of Cases.		No. of Deaths.		Mortality per cent.
Diphtheria	... 14	...	0	...	0·0
Typhoid Fever	... 105	...	16	...	15·2
Scarlet Fever	... 157	...	3	...	1·9
	276		19		6·9

In the records relating to diphtheria and typhoid fever in previous years the case mortality has generally been lower in hospital-treated than in home-treated cases. The figures relating to typhoid fever in 1911 form an exception. The Pentre epidemic of that disease extended into the first part of that year and it is the common experience that at such times the hospital accommodation soon becomes insufficient for all the cases which occur; consequently a selection of the most severe and badly-circumstanced cases is made for removal to the hospital where the facilities for nursing are of course superior to those existing at the respective homes of the patients. In times of epidemics also, the first crop of cases are the most severe, those occurring later in the history of the epidemic being comparatively mild in character. The hospital accommodation becomes rapidly exhausted by the admission of the first rush of cases and it becomes necessary under such circumstances to leave unremoved those suffering from later and milder attacks.

Below a table is given to show the mortality-rate of hospital-treated cases as compared with that of home-treated cases and the case-mortality for the whole district.

	Whole District.			Hospital Cases.			Rest of District (Hospital excluded).		
	Cases.	Deaths.	Mortality per cent.	Cases.	Deaths.	Mortality per cent.	Cases.	Deaths.	Mortality per cent.
DIPHTHERIA (including membraneous croup) ...	126	21	16·6	14	0	0·0	112	21	18·6
TYPHOID FEVER (including continued fever) ...	138	18	13	105	16	15·2	33	2	6·1
SCARLET FEVER ...	897	19	2·1	157	3	1·9	738	16	2·2
Totals	1161	58	5	276	19	6·9	883	39	4·4

Each district ward contributed to make up the total number of patients admitted to the hospital.

	Diphtheria.	Typhoid Fever.	Scarlet Fever.
Ward 1 contributed ...	2	8	6
„ 2 „ ...	0	3	43
„ 3 „ ...	1	45	12
„ 4 „ ...	3	20	47
„ 5 „ ...	1	1	4
„ 6 „ ...	0	0	10
„ 7 „ ...	4	2	10
„ 8 „ ...	2	7	4
„ 9 „ ...	1	17	16
„ 10 „ ...	0	2	5
Totals	14	105	157

The average time spent in hospital by recovered cases was 35 days in the case of diphtheria (the extremes varying from 11 to 85 days), 49 days in the case of typhoid fever (between limits of 14 and 124 days), and 49 days in the case of scarlet fever (the extremes varying from 25 to 109 days).

Of the cases which terminated fatally the average time in hospital in the case of typhoid fever was 11 days and in the case of scarlet fever 10 days.

The maintenance expenditure for the year amounted to £2,174 10s. 3d., apportioned as follows :—

Salaries and Wages	£589 16 6
Bread	67 3 5
Eggs	10 16 10
Fish and Vegetables	105 3 5
Milk	200 12 8
Carried Forward	£973 12 10

Brought Forward	£973	12	10
Meat	289	1	0
Groceries	226	0	2
Gas	138	17	8
Coal and Firewood	193	14	10
Water	53	18	4
Gas and Water Repairs and Renewals ...	8	14	11
Stationery, Printing, &c.	9	14	9
Stimulants (Brandy, &c.)	16	4	7
Veterinary Surgeon's Fees	0	3	9
Horse Feed, Saddlery, &c.	25	10	5
Drugs, Instruments, &c.	54	9	9
Boiler Insurance	7	1	4
Soap, Brushes, &c.	27	18	10
Crockery, Drapery, &c.	21	2	6
Ironmongery	8	16	1
Methylated Spirit, Turpentine, &c. ...	8	10	7
District Rate	28	8	9
Poor Rate	37	18	4
Advertisements	8	7	6
General Repairs	2	9	3
Teak flooring (new), polishing of ...	13	15	4
Garden Seeds	1	5	6
Chimney Sweeping	2	1	0
Postage and Carriage	2	1	3
Repairs to Furniture	7	19	6
Wheelbarrows	1	8	0
Water-proof Bed Sheeting	4	10	3
Sundries	0	13	3
	£2,174	10	3

In addition to the above, which are the usual expenses for maintenance, it was necessary in the course of the year

to obtain additional furniture to completely equip the extensions as well as to renew considerable quantities of linen, &c., which constant use had rendered no longer serviceable. Owing to the non-completion of the contracts, only the accounts in respect of some of the goods supplied are included in the subjoined table, and the remainder will fall within the limits of the year 1912.

	SMALL-POX HOSPITAL.	ISOLATION HOSPITAL.		
	Structural a/c.	Structural.	Establishment.	Patients.
	£ s d	£ s d	£ s d	£ s d
Bedsteads and Wire Mattresses (Davies Cousins) ...		76 5 0		
Linen Goods (Morgan & Co.)...		114 12 1	85 4 7	52 15 3
Linoleums, Rugs and Mats (J. Howells & Co.) ...	2 11 0	77 16 10½	17 16 8½	
Curtains, Tablecloths & Blinds (J. Howells & Co.) ...	15 5 1	33 2 3½	25 13 5½	
	27 16 1	301 16 3	128 14 9	52 15 3

As in the previous year, the medical attendance upon the patients and the administration of the nursing and domestic staff were, in matters of detail, respectively performed by Dr. J. Lambie and Miss R. E. Smith, the latter being assisted by Miss May Shelton, the assistant-matron. The efficiency of the institution is in no small measure enhanced by the cordial co-operation which is displayed by those responsible for the administration of the hospital.

PENRHYS ISOLATION HOSPITAL (SMALL-POX)

No case of small-pox occurred during the year in the district so that occasion to use this hospital did not arise.

The hospital is centrally situated with regard to the district and is at the same time at a sufficiently safe distance from any occupied building.

Accommodation. One pavilion contains two wards with accommodation for 8 patients in each. Another pavilion contains two small wards with two beds in each, these beds being intended to be used as observation beds for doubtful cases.

The institution is occupied by a caretaker and his wife, the former being daily engaged in the performance of work outside the hospital premises but in connection with the health department of the Council.

SCAVENGING AND REFUSE DISPOSAL.

The modes of dealing with the house refuse throughout the area remain substantially the same as in the immediately preceding years and consist in the main of the deposition of the refuse in ten authorized situations scattered throughout the district. A relatively small portion,—about one-twelfth of the whole,—was during a part of the year burnt in a two-cell Mason Destructor at Ystrad. During the year however the Council, in preference to spending a considerable amount on repairs that had become necessary, decided to cease to utilize the destructor for the destruction of refuse. One chronicles this fact without much regret in view of the contemplated developments in this direction that have become possible in consequence of the success of the Council in obtaining parliamentary powers in their Act

of 1911 to purchase lands and to construct thereon and use works for the disposal of the refuse of the district. The Act further provides for the utilization of the heat to be derived from the destruction of the refuse for the generation of electricity for the purpose of lighting the district. Under the powers conferred by the Act the Council have entered into an agreement to dispose of the heat so derived to the Electric Power Distribution Company who in their turn will provide the Council with electricity in bulk on terms agreed upon. Several reports prepared by Messrs. Hammond & Son, Engineers, Westminster, have been under the consideration of the Council and it is believed that contracts for the construction of the necessary works will be let by the Council without undue delay. Although the Act authorizes the Council to acquire several plots of land suitable for the purpose and situated in different parts of the district, the need to do so is not equally urgent in all the several portions of the area because in some localities the position of the refuse tips is accessible and not open, to a like extent, to objections from the public health standpoint. It is obvious however that the system of dumping now so largely practised in the district will progressively become more difficult to follow from year to year owing not only to the impracticability of obtaining suitable sites but also to the ever-increasing risk to the public health which the presence of these huge masses of recently developed refuse occasions in neighbourhoods already populous and rapidly becoming more so.

The refuse collected daily in the district amounts to over 200 loads, the collection being performed between 8.0 a.m. and 1.0 p.m. by a number of contractors scattered throughout the urban area, the contracts being let each September. For this purpose the district is divided into 28 sections all except two of which are scavenged in the way

mentioned, the exceptions being done by the Council themselves by direct labour. The total cost of collection of the house refuse and of its conveyance to the various tips amounted to £6,410, including the cost of scavenging sub-districts 20 and 22 which are scavenged by the Council's own employees under the supervision of Mr. W. J. Jones, the Engineer. This amount is equivalent to an expenditure of 4/9·4 per house as compared with 6/-, 5/6, 4/-, 4/4, 4/6, 6/10·7, 4/10, 5/2, and 5/3·4 for the years 1902-3 to 1910-11 respectively.

The collection being a daily one the erection of large ashbins or ashpits is unnecessary and except at some public buildings such as schools and a few isolated houses or groups of houses such receptacles are seldom found.

SEWERAGE AND DRAINAGE.

In the year 1892 the main sewer, owned jointly by the Pontypridd and Rhondda Urban District Councils, was completed.

This sewer after running a course of 17½ miles, discharges into the Bristol Channel at a point about four miles east of Cardiff. In 1894 one main sewer was laid for each of the two valleys of the Rhondda.

Since 1894 the Rhondda Urban Council have been continuously engaged in completing and adding to their sewerage system, the maintenance of which in an efficient condition is both costly and difficult owing to the rapid increase in the number of houses connected to the system, the hilly and irregular conformation of the district, the heavy rainfall and consequently large amount of surface water which finds its way into the sewers in times of storm, and the liability of

the sewers themselves to suffer damage from subsidence due to colliery operations or from river floods.

Considerable lengths of sewer have not infrequently to be relaid at great expense. The relaying of the subsidiary main sewer from Ferndale to Pontygwaith is at the time of writing in process of completion. This step became necessary owing to the crushing and displacement of long lengths of the original sewer by thousands of tons of colliery refuse deposited over it by the local colliery company. When complete the relaid sewer will obviate the present necessity to pollute the river with the whole volume of sewage from Mardy and Ferndale.

At the present time very few houses are built on ground where it is not reasonably possible to connect their drains with the sewerage system of the district. At Gilfach Goch however some of the houses within the Rhondda area are drained into the Llantrisant sewers, a similar arrangement being mutually agreed upon with regard to certain houses at Penrhiwfer within the district of the Llantrisant Authority, which the latter cannot drain into their own sewers owing to the conformation of the locality. The great majority of the houses in existence at the time the two main subsidiary sewers were laid have now been connected, and new sewers are laid or the old ones extended when the need arises to connect new streets or buildings. The number of unconnected houses in the district is now 420 or less than a tenth of the 4290 houses which were unconnected to the sewer in 1897; their distribution is shown in the following table:

District No.	1	contains	96	unconnected	houses.		
,,	,,	2	,,	29	,,	,,	
,,	,,	3	,,	66	,,	,,	
,,	,,	4	,,	81	,,	,,	

District No. 5 contains 78 unconnected houses.
„ „ 6 „ 73 „ „

The most notable reductions in the numbers of unconnected houses in the course of the year occurred in districts Nos. 1 and 2 where the houses in Tylacoch and Gelli Terrace were connected, a new length of sewer having been laid in each case.

In district No. 1 the houses of Caroline Street, Blaenrhondda were connected to the sewer in 1909 but the length of sewer laid for the purpose was washed away a few months later by a river flood so that these houses at present drain into the river. The contract for relaying the sewer is at the time of writing let, so that in the near future the connection to the sewerage system of this group of houses in District No. 1 will be restored.

There are two other important groups of houses included in the total of unconnected houses, viz :—a group of 50 houses known as Bush Houses, Clydach Vale, and one of 40 houses at Appletree, Dinas.

In 1907 the Bush Houses were provided with pail closets in substitution for the previously existing and highly insanitary ash-middens. The pail closets are cleared by the scavenging contractor for the district and the soil is conveyed to the refuse tip The slop sewage discharges into the Clydach Brook. The second group is situated on ground too low in relation to the sewer to get a fall and the difficulty can only be surmounted by the provision of a small pumping appliance or by the installation of a small bacteria bed system at a suitable position between the houses and the river.

The extent and character of the means of excrement disposal throughout the Rhondda Urban District at the end of

the year 1910 are set out in the appended table which is a summarised compilation of the returns and reports furnished by the sanitary inspectors.

No. of privies with fixed receptacles (middens, cesspits)	101
No. of privies with moveable receptacles (pails) ...	57
No. of water-closets (fresh water cistern-flushed) ...	21,150
No. of water-closets (waste water)	0
No. of water-closets (hand-flushed)	5,278

In the above table no account is taken of supplementary water-closets in better class houses, nor of those in schools, institutes, chapels, churches, halls, theatres, and other public buildings so that the total aggregate given is considerably less than the number actually existing in the district.

Throughout the urban area there are only 158 closets which are not of the "water carriage" kind, and the number belonging to other types is gradually being reduced, conversions of 34 privies with fixed receptacles into fresh-water closets having been effected in the course of the year under review. The rate of reduction will necessarily be slow in the future as the majority of the houses now provided with cesspits or middens are isolated farms or cottages, none of which however are situated on the gathering ground of any important water supply.

COMMON LODGING-HOUSES.

The number of registered common lodging-houses in the district was in the course of the year augmented by the registration of two premises, at Pentre and Ystrad respectively. There are now 8 registered lodging-houses in the district, 5 in Ystrad, 1 in Pentre and 2 in Dinas, the total providing accommodation for 296 persons.

Frequent visits of inspection were paid to all the lodging-houses by Inspectors J. Towy Thomas, and D. W. Jones, in whose districts they are situated, and all were found to be, on the whole conducted satisfactorily.

There are still indications that there is room for more of this kind of accommodation in the district, for the class found to use the lodging-houses, viz:—navvies and other casual labourers. There is also room for lodging-houses of the same nature but of better class to supply the needs of workmen who are able to find regular employment but are unable to find suitable quarters when they arrive in the district.

There are no registered houses let in lodgings throughout the urban area.

REPORTS DURING THE YEAR.

In addition to the ordinary statistical matter, the following subjects were dealt with in the reports placed before the Council during the year:—

Cwmparc Refuse Tip.
Diarrhœa.
Danger of Bathing in Polluted Streams.
Gas and Water Mains at the Tyntyla Hospital.
General Death-rate in 1911.
Houses not connected to the Sewerage System.
Houses condemnable under Section 17 of the Housing, Town Planning, &c., Act, 1909. (2).
Housing conditions throughout the Urban District.
Certain provisions of the Housing, Town Planning, etc., Act, 1909, and the Housing (Inspection of District) Regulations made thereunder.

An Inquiry made concerning the contents of the communication dated the 15th December, 1910, received from the Pentre and District Trades and Labour Council.

Open drain near Tyntyla Road, Ystrad.

Premises, sleeping rooms in which contravene the provisions of the Housing, Town Planning, &c., Act, 1909.

The Public Health (Tuberculosis) Regulations, 1911.

The Influence of the services of the Health Visitors upon the Infant Mortality in 1911.

The Re-arrangement of, and the addition to, the staff of Sanitary Inspectors.

Outbreak of Measles at Treorchy.
,, ,, Cwmparc.
,, ,, Llwynypia.
,, Scarlet Fever at Treorchy (4)
,, ,, Cwmparc (4)
,, ,, Ton.
,, ,, Gelli.
,, Typhoid Fever at Pentre (2)
,, ,, Ystrad.
,, ,, Tylorstown.

The Water Supply of the Pontypridd and Rhondda Joint Water Board.
,, ,, Cambrian Colliery Company (2)
,, ,, Dumfries Street, Treherbert.
,, ,, Danygraig Terrace, Gelli.
,, ,, a portion of Dinas.
,, ,, Leyshon's Buildings, Porth.
,, ,, Eirw Road, Porth.

UNSOUND FOOD.

The following were destroyed during the year :—

Beef	1,812 lbs.
Bullock's Livers ...	63 lbs.
Brawn	7 lbs.
Twelve Chickens, about	40 lbs.
Fish	354 lbs.
Apples	98 lbs.

ADOPTIVE ACTS.

The Infectious Disease (Notification) Act, 1889; The Infectious Disease (Prevention) Act, 1890; and the Public Health Acts (Amendment) Act, 1890, Part III., were adopted by the Rhondda Council from January 1st, 1894, and the Notification of Births Act, 1907, from April 28th, 1909.

POLICE COURT PROCEEDINGS.

The following is a summary of the details of the cases in 1911 :—

Exposure of child whilst in an infectious state 10/-.

Depositing manure in brook 15/-.

Failing to remove offal from slaughter-house £2.

DISINFECTION.

There has been no change during 1911 in the methods of disinfection followed in the district.

After the removal, recovery, or death of each person notified as suffering from one of the notifiable infectious

diseases, removable articles, presumably infected and capable of being disinfected by superheated steam, are conveyed in a special van to the Tyntyla Isolation Hospital where they are subjected to steam disinfection applied by means of a steam disinfector of the " Equifex " type. After removal of the contents above referred to, the infected rooms at the houses are disinfected by means of formaldehyde gas generated by the application of heat to formalin tablets. In instances where the patients remain at home for treatment throughout the infectious stages of the disease, disinfectants in the form of tablets of corrosive sublimate are provided for ordinary household use, printed instructions being left for the guidance of the users.

The systematic disinfection to be carried out in connection with the cases of tuberculosis throughout the district will add very considerably to the amount of disinfection to be done by the Council's staff. It is estimated that there are about 500 cases of the pulmonary form of tuberculosis in the Rhondda. When it is considered that the sufferers will continue to be capable of infecting clothing and other articles in the rooms they occupy, usually for periods extending into months and years whether in their progress to recovery or to a fatal issue, and that the necessity for disinfection will arise several times in the course of the illness of each tuberculous patient, it is obvious that the additional disinfecting work to be performed will be very great. In view of these circumstances, it has become necessary for the Council to provide a separate disinfecting station which can be usefully and conveniently combined with a cleansing station. It is now an opportune time to do so, as some of the land to be acquired for the erection of destructors and electric lighting stations may be advantageously set apart for this purpose. Moreover some of the heat generated in the destructor cells may be utilized for the production of

the steam necessary for disinfection as well as for heating the water for the baths which form an essential feature of a cleansing station.

WATER SUPPLY.

Taken as a whole, the Rhondda Urban District may be considered to be supplied by two water undertakings, the one being in the hands of the Council and the other in the hands of the Pontypridd and Rhondda Joint Water Board which on the 1st of January 1911 took over the undertakings of the Pontypridd Waterworks Co., the Joint Water Board being composed of representatives from the Rhondda and Pontypridd Urban District Councils.

The extremely dry summer of 1911 served to emphasise the deficiencies and defects of both sources of supply, and to direct attention to the need of making further provision for the future to meet the requirements of a rapidly increasing population so as to provide a supply in times of drought sufficient to obviate danger to the public health.

The Council's area of supply.—This area, 15,182 acres in extent, includes the Rhondda Fawr Valley from its upper end to a line passing through Trealaw and Penygraig in Wards 6 and 7 respectively, and within it are situated 14,616 houses of which 12,893 are supplied from the Council's mains the remainder being served from the various sources mentioned below.

The water is for the most part upland surface water derived from the extreme upper end of the Rhondda Fawr river and from the Selsig, Ffernol, and some other unnamed tributary streams, which together constitute the normal available supply to the Ty'nywaun reservoir at the head of the Valley. This reservoir has a capacity of only

7,000,000 gallons, which practically form the total reserve of the Council for supplying over 76,000 persons.

The water before its entrance into the mains is filtered by means of five sand filter beds situated within the same enclosure as the reservoir. The position of this enclosure renders a supply by gravitation possible in all parts of the area now supplied except two. At Blaenycwm 22 houses are supplied by means of a small water ram which feeds a tank with a capacity of 250 gallons. At Blaenclydach again it is necessary to use a pump worked by a gas engine to feed a service tank of 100,000 gallons capacity for the supply of about 250 houses.

Mr. Octavius Thomas, the Council's Gas and Water Manager, furnishes the information that 382 new services were laid on to dwelling houses during the year. Of these 47 were required for old houses the supplies of which had failed or proved unsatisfactory. The consumption per head of the population, calculated at 5·92 persons per house was found by Mr. Thomas to amount to 20·08 gallons per day for domestic purposes, and only ·69 gallons for trade purposes, all water supplied by meter being considered to belong to the latter category and therefore to include water supplied to schools and the fever hospitals.

Owing to the extremely dry summer it was found necessary to place the district served by the Council on short supply on two occasions—June 13th to June 19th and July 27th to August 5th,—the total of the two periods amounting to 17 days. Under the exceptional circumstances, the available water was remarkably well husbanded by the manager and his staff. During the periods of shortage a 3 hours' daily service was given to each house in the area of supply, bills stating the times of service in each part of the area having been previously printed and posted

throughout each area. Although this arrangement was doubtless the best possible under the circumstances it cannot be said that it was satisfactory. In the first place the services are not adapted to an interrupted supply, as there are no household storage cisterns, the water being supplied direct from the main. As a result of this, the water supplied during the 3 hours of service was frequently found to contain a considerable sediment of material which had become dislodged from the mains by the interruption of the service and this sediment was often sufficiently marked to render the water unacceptable for drinking or for cooking purposes, consequently consumers were tempted to carry water from springs on the hillsides or from other objectionable sources, rather than use the tap water for culinary purposes.

Fortunately on this occasion no serious epidemic of water-borne disease resulted but sufficient inconvenience was felt to direct public attention to the pressing need for further means of storage as a reserve in case of drought. The Council are now engaged in remedying this serious inadequacy of the reserve by the construction of a storage reservoir on the site of the natural lake known as Llyn Fawr and situated on the other or north-western side of the watershed on which the present or Ty'nywaun reservoir depends. It was at one time hoped that this reservoir would have been completed in the course of the year 1911 but the occurrence of exceptional circumstances have very seriously delayed the work, so that it will probably not be available till the year 1913. Two new intakes have been constructed at the top of the Rhondda Fawr Valley considerably above the old intake, and at a sufficient height for water to flow by gravitation into the Llyn Fawr Reservoir, through pipes laid in a tunnel which has been bored a distance of over 2,000 yards through the hill intervening

between the intakes and the Llyn Fawr reservoir. At the Rhondda end of the tunnel there is a valve house where the water can be directed at will from the intakes to the Llyn Fawr Reservoir, from the intakes to the Ty'nywaun Reservoir, or from the Llyn Fawr Reservoir to the Ty'nywaun Reservoir. The single length of piping in the tunnel will therefore serve the double purpose of filling the Llyn Fawr Reservoir from the intakes and of supplying the Ty'nywaun Reservoir from Llyn Fawr. The completion of the reservoir will provide an additional storage capacity of 167,000,000 gallons.

The construction of filter beds and service reservoirs at a sufficient height to provide a gravitation service to certain parts of the district not so supplied at present is a matter at the time of writing under consideration by the Council. The water now being supplied by the Council has no appreciable plumbo-solvent action but in view of the fact that Section 8 of the Rhondda Urban District Council Act, 1905, imposes an obligation on the Council to treat all water supplied so as to prevent it acting on lead in such a manner as to endanger the health of consumers, and in consideration of the peaty nature of the soil at present being removed from the bed of the new reservoir, certain chemical tests have already been performed with the object of ascertaining the possible action of the soil of the bed of the reservoir on the water stored therein.

These tests indicated that the soil now being removed from the reservoir bed was capable of conferring a certain amount of plumbo-solvent property upon water brought into contact with it while that which will constitute the permanent floor of the reservoir possesses the same power to a less degree which, it is believed, will be to some extent if not entirely neutralized by the non-plumbo-solvent water which will be conducted to the reservoir from non-peaty

gathering ground. In the event of the water resulting from the admixture being found to be plumbo-solvent in character, means should be provided by the Council to remove this property for the protection of the consumers.

As already mentioned a considerable number of houses within the limits of the Council's supply obtain water from sources other than that of the Council. The most important groups dependent upon distinct supplies are the following:—

(1) About 50 houses at Fernhill.

(2) Fifty-one houses at Caroline Street, Blaenrhondda.

(3) Over 100 houses at Blaenrhondda.

(4) Three groups at Cwmparc, respectively of about 600, 44, and 19 houses with separate sources of supply.

(5) A small group at Ystrad.

(6) About 300 at Llwynypia.

(7) Nearly 1,000 houses at the upper end of Clydach Vale and another smaller group near the Bush Hotel, Clydach, with separate sources of supply.

The water from these sources is in each case unfiltered or inefficiently filtered and in several of them there is grave danger of gross contamination of the water.

Most of these supplies have from time to time been the subject of complaint by the consumers to the Health Department. The most persistent complaints during recent years have come from the 1,000 houses in Clydach Vale supplied by the Cambrian Colliery Company.

In the course of the year the following report dealing with this water supply was submitted to the Health Committee:—

A Report upon the Water supply of the portion of Clydach Vale supplied by the Cambrian Colliery Company.

SUPPLEMENT TO THE MEDICAL OFFICER OF HEALTH'S REPORT FOR AUGUST, 1911.

To the Chairman and Members of the Council.

GENTLEMEN,

In accordance with your instructions I herein record the results of an inquiry recently made concerning the character of the water supply of the upper portions of Clydach Vale. The inquiry in question forms but an item in a series of observations which have been made from time to time as circumstances have permitted or demanded and the records of some of which have been included in my periodical reports during recent years.

The upper end of Clydach Vale as far as North Terrace and its continuation to the Pwyllyrhebog branch of the Taff Vale Railway, is supplied with water almost entirely by the Cambrian Colliery Company. The adjoining portion of Clydach Vale is supplied by the Council. The number of houses within the area supplied by the Company amounts to 1,025 (27 cellars not being separately enumerated) but as 100 of these are not provided with water from this source, the actual number for the supply of which the Colliery Company is responsible is 925. As stated in the reports referred to, the supply has been the subject of complaints, relating either to the quality of the water supplied, or to its insufficiency, or to both. The shortcomings of the supply, as regards both its character and quantity, have varied in their more obvious manifestations and the localities in which they are most marked are not invariably the same. The inadequacy of the amount of water supplied led in November, 1905, to an urgent application being made to the Council

as a result of which Mr. Octavius Thomas, the Council's Water Manager, was instructed to fix a standpost in a convenient position on the Company's side of the boundary between the two water areas. That source of supply has been allowed to remain to the great convenience of those who are ill-supplied by the Company and who live within a reasonable distance of Clydach Road in which the standpost has been fixed.

The description of the works as now existing may conveniently be considered under the following headings :

(1) Source.
(2) Protection and purification.
(3) Distribution.

(1) *Source (gathering ground, storage, &c.).*

The water now used by the Company in supplying the consumers is apparently derived from three sources :—

(*a*) A small dam has been thrown across the course of the Clydach Brook about one quarter of a mile above its junction with Nant Pant-y-twlc. The reservoir or pond thus formed measures only 12½ feet by 14 feet and from it leads an iron pipe to a covered service tank near the junction of the two water courses mentioned. During recent years this source has repeatedly failed the Company during dry weather and at the time of a recent inspection (September 12th, 1911), there was no water in the brook at this point, and one is justified in concluding from the foul state of the bed of the collecting pond that it had not held any water for some time. Attempts have also been made from time to time to collect water from several points on the north-eastern side of the Clydach Brook in the neighbourhood of the reservoir by means of iron pipes, but these at the present time have become disjointed and displaced or broken and obviously conduct no water into the storage pond.

(*b*) A small area of peaty uplands overlying clay, and situated west of the general line of Clydach Vale yields a quantity of water which is collected by means of several trenches which converge at a small open pit from which leads a four-inch iron pipe to the covered service tank mentioned under (*a*). On the 12th of this month (September) the water collected at this point served to fill one-fourth or one-fifth of the four-inch main.

(*c*) On the western side of the service tank is a disused coal level, and there is reason for believing that, during dry weather at least, the water derived from this level forms the chief source of supply of the Company's area of Clydach Vale, and at the present time there is an abundance of water issuing from the level's mouth. It is understood that the pipe conducting the water from the level to the service tank is laid for some distance into the level, but all attempts on my part to see its commencement have failed. The conditions obtaining at or about the level have altered considerably during recent years, for whereas previously it was possible to walk into the level for some distance it is now impracticable to do so, even at the end of a long drought as on a recent occasion, owing to the amount of water within the level itself. This may be partly due to a certain amount of damming of the entrance to the level, which has been caused by some quarrying operations which have been and are being carried on in the neighbourhood of the level, but there is also evidence that another and adjoining level has become partially or completely closed by falls or otherwise, and that the obstructed water has become diverted into the level which serves as one of the sources of the water for the supply of Clydach Vale.

(2) *Protection and Purification.*

No form of protection is provided for the gathering grounds and the various points at which the water is col-

lected before distribution, except for the service tank mentioned under (3). The beginning of each of the two mains which can be examined are provided with screens for the purpose of excluding therefrom coarse particles such as lumps of peat, grass, and other more objectionable things which may gain access to the waters. No form of filtration as understood at the present time is practised in connection with this water supply, and there is in use no other form of purification, whether considered as essential or adjuvant in the case of water of this character.

(3) *Distribution.*

The water derived from the sources detailed above is collected in a service tank which is enclosed by an imperfect wooden paling and covered by a roof, made partly of slates and partly of corrugated iron. The outside measurements of the building are 44 feet by 20 feet. The enclosed tank was ascertained on a previous occasion to be divided into two main parts by two parallel brick partitions with a narrow channel between the two. The structure was perhaps built for the purpose of sand filtration but I have no evidence that it has ever been so used, and it now appears to act as a service tank only.

There is one main leading from the tank for the supply of the upper portion of Clydach Vale. Most of the complaints received from the consumers point to the insufficiency or mismanagement of the distributing system for serious deficiencies in distribution cause many complaints to be made, for they directly lead to much personal inconvenience to the consumers whereas defects in the quality of the water, although possibly possessing dangerous properties, are less easily recognised unless of a very gross kind. As evidence that errors in distribution exist it may be mentioned that while the houses at the upper end of Oak Street receive a fairly regular supply, those in the upper end of

Pleasant View, although at a considerably lower level than the portion of Oak Street mentioned, are said to have been for three weeks this year without any water at all. At the time of my last inspection (at 6.30 p.m., on September 13th, 1911). there was no water obtainable from the taps of the houses at the upper end of Pleasant View. Visits have also been recently paid to houses in Moreton Terrace, Belle Vue, Marion Street, Howard Terrace and High Street, and in all the complaint was received that the supply was more or less irregular especially at the higher elevations.

As stated, at least two of the present sources, and possibly the third, are open to animal and vegetable pollution, and I reiterate the opinion I have expressed in a former report, that "there may occur at any moment an epidemic of some water-borne disease, such as typhoid fever, as long as the existing conditions are allowed to continue." Harm may also accrue from the circumstance that, in the absence of the more usual supply, the consumers are compelled to resort to other available sources such as mountain streams, and surface wells, which are exceptionally liable to contamination owing to their exposed positions and their comparatively close proximity to habitations.

Yours faithfully,

J. D. JENKINS.

September, 1911.

The Supply of the Pontypridd and Rhondda Joint Water Board.

The area supplied by the Joint Water Board in the Rhondda comprises the portion of the district not supplied by the Council, but in this area also there are groups of houses supplied from different sources. The total number of houses so supplied amount in the aggregate to nearly 600, the most important groups being situated at Penrhiwfer, Trebanog, Hafod, and Pontygwaith.

The undertakings of a private company having been taken over by a public body it was hoped that considerable improvement would follow after the expiration of a reasonable time subsequent to the transference, but the result of a year's working has not so far confirmed expectations. It is true that the summer of 1911 was an exceptional one but it is likewise the case that complaints against this supply have never been more numerous or bitter than during the year under review. Serious insufficiency of supply was complained of during a considerable part of the year, especially in Mardy, Ferndale, Blaenllechau, Trealaw, Trebanog, and Williamstown. The inadequacy of supply was attributed to various causes, among them being insufficiency of mains, increase in the number of houses supplied, withdrawal of water from the mains for purpose of street-watering, and the practice largely followed in the past of supplying a large number of houses from the same service pipe. With the exception of the additional houses supplied, all these causes previously existed. It is to be hoped that the acquisition by the Board of a further knowledge of the intricacies of the system may enable them, not only to restore the supply to the state of comparative efficiency which marked the last year of the Pontypridd Waterworks Company's existence, but also to adopt such measures as will enable them to effect improvements which will justify the retention of confidence in their ability and willingness to provide a constant supply under all circumstances of pure and wholesome water to all their consumers. Years of experience of the supply have made it sufficiently obvious that one of the most important and urgent problems presenting themselves to the Board for solution is the provision of greater reserve, preferably in the form of a storage reservoir placed in such a situation that the risk of leakages, obviously characterizing all reservoirs upon the coal measures if and when worked, will not exist. The Board already possess the

powers under the Company's Act of 1908 to construct such a reservoir in the Llia Valley which provides this possibility together with the important one of an unexceptionable gathering ground.

HOUSE ACCOMMODATION.

The year 1911 witnessed a marked fall in the number of houses built for the accommodation of the increase in population due to the excess of births over deaths and of immigration over emigration. The total number of new houses passed for occupation during the year amounted to 769, which is the lowest annual total since 1904, in which year the number reached 594. The number of additional houses actually available however was only 743 because allowance has to be made for 26 of the previously existing dwelling-houses which were either abandoned, demolished, or replaced in the course of the year. Even the number thus reduced has served not only to meet the requirements in regard to accommodation alone of the estimated increase in the population during the year but also to lower to a slight extent the average number of persons per house throughout the district.

From the point of view of the suitability of the accommodation provided to meet the needs of a large number of the applicants for tenancies, much remains to be desired. The class of house which continues to be built in the district has shown very little variation in design for many years, the standard house for the area consisting of a kitchen, parlour, and 3 bedrooms, together with a pantry, scullery, coal-house and necessary offices. The speculative builder usually erects houses with the hope of being able to sell them before or on completion so that he necessarily makes provision for the requirements of the comparatively well-to-do, whose demands in this direction are naturally

more ample and exacting than those of the unskilled or casual labourer earning barely a living wage. It is hoped that the initial, but hitherto preliminary, steps taken by the Council since the issue of my report for 1910 will culminate in the provision at an early date of a sufficient number of houses for those who cannot afford to occupy the standard houses of the district, without resorting to the undesirable plan of sharing their houses with other families or lodgers. In this connection it is important to bear in mind the probable result in regard to the many under-tenements now separately occupied throughout the district of the Regulations drawn up by the Council in pursuance of the provisions of the Housing, Town Planning, &c., Act 1909, and submitted to the Local Government Board for approval. If the approved form of these Regulations will require the condemnation of many of these under-tenements or cellars, a considerable number of people will be necessarily dislodged, temporarily or permanently, and it will be difficult under the existing conditions to house them, especially when it is considered that they generally belong to the substratum of the community and, not infrequently, to the unemployed or unemployable.

The subjoined table sets out the number of houses passed for occupation in each year since 1897. If the period subsequent to that year be divided equally, it will be seen that the average annual increase of dwelling-houses during the first half was only 317 while for the latter moiety of the period the average was no less than 880.

In 1898	there	were	317	new houses	passed for occupation.
,, 1899	,,		157	,,	,, ,,
,, 1900	,,		148	,,	,, ,,
,, 1901	,,		187	,,	,, ,,
,, 1902	,,		334	,,	,, ,,

In 1903	there were	483	new houses	passed fer occupation.
„ 1904	„	594	„	„ „
„ 1905	„	904	„	„ „
„ 1906	„	879	„	„ „
„ 1907	„	827	„	„ „
„ 1908	„	829	„	„ „
„ 1909	„	1,025	„	„ „
„ 1910	„	926	„	„ „
„ 1911	„	769	„	„ „

The diminution in the total for the year 1911, as compared with the six immediately preceding years, was doubtless largely due to the exceptional circumstances which characterized that year. The degree of unrest in the coal industry, which had long existed and which culminated in the universal strike of last year, served to reduce the enterprise of private firms and to cause a considerable degree of stagnation in trade generally.

The local distribution of the newly-erected houses has not been uniform throughout the whole area, as shown in the following table:—

96	houses	were	passed	for occupation in	No. 1 Ward.
88	„	„	„	„ 2	„
11	„	„	„	„ 3	„
87	„	„	„	„ 4	„
31	„	„	„	„ 5	„
63	„	„	„	„ 6	„
93	„	„	„	„ 7	„
52	„	„	„	„ 8	„
126	„	„	„	„ 9	„
122	„	„	„	„ 10	„
769					Rhondda.

Contrary to the experience of several recent years, ward 10, comprising Ferndale, Blaenllechau, and Maerdy, contributed a relatively high proportion to the total. For many years much difficulty in leasing suitable land in that neighbourhood has been experienced, but recently circumstances have rendered available several plots which are now being rapidly built over to the great convenience and advantage of the people of this ward, which has hitherto shown, as a result of several investigations, the highest average number of persons per house for many years.

During 1911, plans for 659 dwelling-houses, 17 shops and dwelling-houses combined, 3 lock-up shops, 7 chapels and churches were submitted and approved by the Council (Table 48).

ADMINISTRATION.

Steps preparatory to important additions to the staff were taken in the course of the year, the Council having decided to appoint five additional inspectors whose main duty it will be to take advantage of the provisions of the Housing, Town Planning, &c. Act, 1909, especially in reference to the maintenance of the houses of the working classes in a state of reasonable fitness for human habitation. The appointment of the additional inspectors, while relieving the district inspectors of the amount of house-to-house inspection which they have done from time to time and when other work permitted, will doubtless result in increasing the "following up" duties which will devolve on the district inspectors to an extent proportionate to the amount of work required to be done to restore the houses to or maintain them in the desired condition. It is hoped and believed that in the course of time these duties will become less onerous, and thus allow the inspectors to devote more time to the many other duties

which have hitherto received less attention than their importance merits; as an example may be mentioned the efficient inspection of meat, five of the six district inspectors being now in possession of a special certificate in this branch of a sanitary inspector's work.

No change apart from the minor positions was necessary in the staffs of the Isolation Hospitals during the year. The Medical Officer of Health acts as School Medical Officer and Medical Superintendent of the Council's two Hospitals, but the addition to the staff of inspectors will make it necessary to relieve him of the performance of much of the detailed work of a Chief Inspector of Nuisances, whose duties he has in effect hitherto performed, Inspector J. Towy Thomas being Chief Inspector in name only up to the present. Dr. J. Lambie continues to act partly as Assistant Medical Officer of Health and partly as Medical Inspector of School Children, and Dr. J. Glenton Myler gives all his time and attention to the medical inspection of children attending the Elementary Schools and matters relating thereto. Miss Jessie Jones, after the performance of faithful and useful work in her district as health visitor, resigned her post, and was succeeded by Miss Blanche Hoyle. At the time of writing the Council have decided to appoint 4 additional health visitors, so that attention may be given to the reduction of infantile mortality throughout the whole of this area, as well as to duties urgently calling for heed in relation to school children and cases suffering from tuberculosis in the district.

An important change in the clerical staff was necessitated by the relinquishment of the post of Chief Clerk by Mr. E. R. Jenkins, who was succeeded by Mr. T. J. Rees; the latter's position as second clerk was filled by the appointment of Mr. Abraham Morgan, from the Council's Gas and Water

Department. Mr. Caradog David retained the position he previously occupied.

MILK AND OTHER FOOD SUPPLIES.

The greater proportion of the milk sold within the Rhondda is obtained from areas beyond the district, chiefly from the rural portions of Glamorgan, although a considerable quantity is derived from England, especially Somersetshire.

There are in the district 92 cowsheds, many of which are connected with the farms dotted on the hills skirting the two valleys, and which provide accommodation for nearly 500 cows.

The provisions contained in the Regulations which were made in pursuance of the Dairies, Cowsheds, and Milkshops Order, 1885, and which have been in force in the district since April 1st, 1906, furnish the powers of control possessed by the Council.

These premises, as well as the 156 dairies and milkshops in use in the district, are periodically inspected by the Sanitary Inspectors, but no provision has so far been made for the veterinary examination of cows and bacteriological examination of milk samples for the detection of tuberculous disease among the cows, although the Council in 1905 obtained special powers, by means of a local Act of Parliament, for the purpose of discovering and dealing with tuberculous milk sold in the district as well as cows having tuberculous udders. At the time of writing however the Medical Officer of Health has been granted authority to consult a Veterinary Surgeon in special cases.

Five of the six inspectors who formed the sanitary staff in the year 1911 now hold a certificate of competence in the

inspection of meat and other foods, but the inspection of meat in the district is unsatisfactory owing to the lack of municipal slaughter-houses.

There are 39 private slaughter-houses scattered throughout the district, 34 being registered and the remainder licensed annually. It is impossible under the present conditions to examine all the carcases of animals slaughtered in the district but the Council in the Rhondda Urban District Council (Tramways Extensions, etc.) Act, 1910, obtained powers to acquire by agreement any slaughter-house within the district and to agree with the owner, lesee and occupier of any slaughter-house for the abolition of slaughtering therein on such terms as may be arranged between the parties concerned. The exercise of these powers will render the application of an efficient scheme possible.

The quality of the meat sold in the district is on the whole satisfactory, but the sale of imported frozen meat seems to be increasing to a remarkable extent. Very little imported meat preserved in pickle or other preservative is sold throughout the urban area but a large amount of potted meat is consumed in the course of a year.

The duty of administering the Food & Drugs Acts in the Council's area is discharged by the Glamorgan County Council.

POLLUTION OF RIVERS.

In the course of 1911 no legal proceedings were taken under the provisions of the Rhondda Urban District Council (Tramways Extensions, &c.) Act, 1910 in pursuance of the powers thereunder for preventing the deposition of silt in the Rhondda Rivers and their tributaries in consequence of repeated acts of tipping of colliery refuse on the river banks in such a way that a considerable portion or the whole of the material tipped is carried

away from one part to be deposited in another part during floods. Communications have however passed between the Colliery Companies concerned and the Council, with the result that plans of protecting river walls have been submitted in some instances for the latter's approval. If such walls when erected be sufficiently substantial and extensive in relation to the amount of refuse tipped they will doubtless materially assist in obviating the periodical inundations of the low-lying portions of the district as at Treorchy, Pentre, Gelli, Ferndale, and Trehafod which every high flood at present causes to the serious inconvenience and risk to the health of the inmates of the inundated houses.

SHOP HOURS ACT, 1904.

In the course of the year 1911, the provisions of the Shop Hours Acts were to a great extent amplified, modified, or substituted by those of the Shops Act, 1911. It is not proposed to consider the provisions of the latter Act in this report as all the Acts relating to shop hours and employment in shops have, at the time of writing, been consolidated in an Act known as the Shops Act, 1912, the provisions of which will come up for consideration in the report for that year. It is sufficient for the time being to mention that as far as the Rhondda is concerned, on and after the 1st of May, 1912, the administration of the Shops Act will be an additional duty of the Health Department and that two Inspectors will be employed mainly in enforcing the provisions of the Act in the District.

EMPLOYMENT OF CHILDREN'S ACT, 1903.

Bye-laws under this Act were framed by the Council and received the sanction of the then Home Secretary in 1907. The Act and the bye-laws made thereunder are

being administered in the Rhondda by the Police Authorities of the Administrative County of Glamorgan, all prosecutions found necessary being instituted and conducted by the Clerk to the Council.

FACTORY AND WORKSHOP ACT, 1901.

Section 132 of this Act, which became operative on January 1st, 1902, requires that —" The Medical Officer of Health of every District Council shall, in his annual report to them, report specifically on the administration of this Act in workshops and workplaces, and he shall send a copy of his annual report or so much of it as deals with this subject, to the Secretary of State."

The number of workshops distributed throughout the district amounts to 1215 or 7 more than in the previous year. As will be seen from the appended table the trades carried on are such as are incidental to any large community and though numerous the workshops are small.

The aggregate number of persons employed in workshops is however large and it is a matter for regret that the limited staff of the Health Department have not up to the end of the year under review, been able to devote more time to the conditions under which these persons work, and to the periodical inspection and supervision of workshops. At the time of writing, however, it has been decided by the Council, that two Inspectors to be appointed under the Shops Act, and to be attached to the Health Department are to undertake the performance of certain duties under the Factory and Workshop Acts to the extent which a due and proper execution of their other duties will permit.

At the present time all plans for new workshops are examined by the Surveyor and Medical Officer of Health

before being passed and adequate and suitable sanitary accommodation is insisted upon. Many visits are paid by the Inspectors to established workshops in response to complaints and in following up notices served in consequence of unsatisfactory conditions found on former visits. Such notices are almost invariably informal notices by the inspector, the defects or nuisances being as a rule removed promptly without recourse to statutory notices or proceedings.

The 161 bakehouses in the district are, generally speaking, small, and with few exceptions, each gives employment to only one or two persons.

Underground bakehouses, in the full sense of the term, do not exist throughout the urban area.

Outworkers are practically non-existent in the district.

Workshops and Workplaces in the Rhondda in Wards.

	1	2	3	4	5	6	7	8	9	10	Total.
Bootmakers ...	15	9	19	16	16	24	13	14	12	14	152
Bakers ...	16	15	15	14	18	13	16	17	17	20	161
Blacksmiths ...	2	1	3	1	2	2	3	3	2	3	22
Barbers ...	15	12	14	11	13	15	11	14	19	13	137
Basket-Makers ...	—	—	—	—	—	1	—	—	—	—	1
Carpenters ...	5	4	7	8	7	9	4	8	9	11	72
Fried Fish Shops ...	12	10	14	15	8	14	9	11	13	6	112
Coachmakers ...	1	—	1	—	1	3	2	1	—	1	10
Cycle Repairers ...	1	1	1	1	1	2	—	2	—	—	9
Dressmakers ...	28	31	22	17	13	21	3	16	18	30	199
Dressmakers and Milliners (comb).	1	1	—	1	1	—	—	3	3	3	13
Glaziers ...	2	1	2	3	—	2	—	1	1	1	13
Jewellers ...	1	3	5	2	—	7	1	3	3	7	32
Milliners ...	8	9	11	9	8	7	6	6	5	8	77
Knitters ...	—	—	—	—	—	—	—	—	1	—	1
Picture Framers ...	4	3	4	4	1	—	—	—	—	1	17
Printers ...	1	1	1	—	—	—	—	2	—	1	6
Plumbers ...	1	2	3	2	2	1	1	3	—	2	17
Saddlers ...	2	—	1	—	—	1	1	2	—	2	9
Monumental Masons	—	3	—	—	—	3	—	—	2	2	10
Sweet Makers ...	1	—	3	1	—	—	—	—	—	—	5
Tailors ...	10	12	12	10	4	6	4	5	4	7	74
Tinmen ...	—	—	1	—	1	1	—	2	1	1	7
Quarries ...	2	4	3	9	5	6	6	3	15	6	59
Total ...	128	122	142	124	101	140	80	116	125	139	1215

APPENDIX.

Table 1.

Population of the Rhondda Valley since 1801.

Year.	Houses.			Persons.			Persons per house.
	Inhabited.	Uninhabited.	Building.	Male	Females.	Total.	
a 1801				265	277	542	
1811				283	293	576	
1821				309	338	647	
1831				277	265	542	
1841				386	362	748	
1851				493	458	951	
1861	561	107	5	1,669	1,366	3,035	5·4
1871	2,710	32	62	9,559	7,355	16,914	6·2
b 1871						23,950	
1881	9,193	340	158	30,877	24,755	55,632	6·0
1891	13,551	146	374	50,174	38,177	88,351	6·5
1901	19,210	368	112	62,315	51,420	113,735	5·92
1911						**152,798**	

NOTES.

(*a*) The census returns for 1801 include Rhigos which is not within the present area of the Rhondda District.

(*b*) Portions of the Llanwonno and Llantrisant Districts were added to the Rhondda District on October 1st, 1879.

The Registrar-General estimated the population in the enlarged area in 1871 at 23,950.

Table 2.

Rateable Value as stated in Poor Rate.

I am indebted to Mr. Evan Llewellyn for the following statement :—

Year ending March.	£	General District Rate in the £
1892	397,814	1 6
1893	403,106	1 6
1894	389,524	2 3
1895	382,429	2 9
1896	409,807	2 6
1897	443,290	2 6
1898	451,977	2 6
1899	462,354	2 6
1900	463,387	2 9
1901	490,352	2 9
1902	535,255	3 0
1903	539,336	3 0
1904	515,731	3 8
1905	527,210	3 0
1906	520,041	3 0
1907	550,019	3 0
1908	569,169	3 3
1909	622,833	3 6
1910	646,069	3 3
1911	643,471	3 4
1912	**617,992**	**3 3**

The assessable value for the half-year ending March, 1912, is £545,344 12s. 6d.

An analysis of the different rateable values shows that 88 per cent. of the houses in the district are rated under £10 per annum, and that 95 per cent. are rated under £20 per annum.

A penny rate produces £2,272 5s. 4d.

Table 3.

Showing the actual number of Births in the Rhondda, and the Birth-rates during the years 1891-1911.

Year.		Total Births.		Birth-rate per 1,000	Average of Ten Years.
1891	...	3,935	...	44·0	
1892	...	3,916	...	42·9	
1893	...	4,149	...	44·3	
1894	...	3,715	...	38·7	
1895	...	4,245	...	43·1	41·2
1896	...	4,328	...	42·9	
1897	...	4,109	...	39·7	
1898	...	4,120	...	38·8	
1899	...	4,089	...	37·5	
1900	...	4,469	...	40·0	
1901	...	4,586	...	40·0	
1902	...	4,937	...	41·8	
1903	...	4,897	...	40·3	
1904	...	4,860	...	38·8	
1905	...	4,664	...	36·2	38·3
1906	...	4,751	...	35·8	
1907	...	4,831	...	35·3	
1908	...	5,454	...	38·7	
1909	...	5,577	...	38·4	
1910	...	5,628	...	37·7	
1911	...	**5,491**	...	**35·7**	

Table 4.

Comparative Birth-rate Table for 1911.

	Birth-rate per 1,000
England and Wales	24·4
Rural England and Wales	23·4
77 Great Towns	25·6
136 Smaller Towns	23·4
Rhondda	**35·7**

Table 5.

The number of houses, estimated population, number of births and birth-rate per 1,000 for each Ward.

Ward.	Number of occupied houses.	Estimated population to middle of 1911.	Number of Births.	Birth-rate per 1,000.
1	2,316	12,421	506	40·7
2	2,773	16,225	566	34·9
3	2,154	12,182	382	31·4
4	2,054	12,018	418	34·8
5	2,639	15,698	507	32·3
6	2,460	14,873	559	37·6
7	2,229	12,389	443	35·8
8	3,382	17,150	603	35·2
9	3,817	22,333	868	38·9
10	3,009	18,486	611	33·1
Inward Transfers			28	·2
Rhondda	**26,833**	**153,775**	**5,491**	**35·7**

Table 6.

Showing the number of Illegitimate Births in the Rhondda.

In 1895 there was a number equivalent to 26 per 1,000 of total births.							
,, 1896	,,		,,		24	,,	,,
,, 1897	,,		,,		23	,,	,,
,, 1898 there were 105, equal to 25 per 1,000 of total births							
,, 1899	,,	75	,,	18	,,	,,	
,, 1900	,,	111	,,	24	,,	,,	
,, 1901	,,	97	,,	21	,,	,,	
,, 1902	,,	97	,,	15	,,	,,	
,, 1903	,,	115	,,	23	,,	,,	
,, 1904	,,	100	,,	20	,,	,,	
,, 1905	,,	100	,,	21	,,	,,	
,, 1906	,,	101	,,	21	,,	,,	
,, 1907	,,	107	,,	22	,,	,,	
,, 1908	,,	119	,,	22	,,	,,	
,, 1909	,,	130	,,	23	,,	,,	
,, 1910	,,	121	,,	21	,,	,,	
,, 1911	,,	**136**	,,	**25**	,,	,,	

Table 7.

Number of Births, Birth-rate, number of deaths of children under one year of age, Infantile mortality-rate, number of Deaths, and Death-rate in each year since 1891.

Year.	Total Number of Births.	General Birth-rate per 1,000	Number of deaths of children under one year of age.	Infantile Mortality-rate per 1,000 births.	Total Number of Deaths.	General Death-rate per 1,000
1891	3,935	44·3	862	219	2,255	25·4
1892	3,916	42·9	757	193	1,804	19·8
1893	4,149	44·3	932	225	2,132	22·8
1894	3,715	38·7	757	204	1,706	17·7
1895	4,245	43·1	997	235	2,246	22·8
1896	4,328	42·9	855	198	2,105	20·8
1897	4,109	39·7	838	204	2,049	20·1
1898	4,120	38·8	793	192	1,979	18·8
1899	4,089	37·5	1,016	248	2,419	22·4
1900	4,469	40·0	839	188	2,181	19·9
1901	4,586	40·0	1,020	222	2,431	21·2
1902	4,937	41·8	883	179	2,190	18·6
1903	4,897	40·3	778	159	1,998	16·4
1904	4,860	38·8	925	190	2,345	18·7
1905	4,664	36·2	927	199	2,402	18·6
1906	4,751	35·8	821	173	2,074	15·6
1907	4,831	35·3	782	162	2,133	15·6
1908	5,454	38·7	1,002	184	2,516	17·9
1909	5,577	38·4	724	130	2,231	15·4
1910	5,628	37·7	770	137	2,181	14·6
1911	**5,491**	**35·7**	**902**	**164**	**2,352**	**15·3**

Table 8.

Showing the number of houses, estimated population, number of deaths, and death-rate per 1,000 for each Ward.

Wards.	Number of occupied houses.	Estimated population to middle of 1911.	Number of Deaths from all causes.	Death-rate per 1,000.
1	2,316	12,421	228	18·4
2	2,773	16,225	262	16·2
3	2,154	12,182	183	15·0
4	2,054	12,018	181	15·1
5	2,639	15,698	217	13·8
6	2,460	14,873	216	14·5
7	2,229	12,389	187	15·1
8	3,382	17,150	254	14·8
9	3,817	22,333	355	15·9
10	3,009	18,486	269	14·6
Rhondda	**26,833**	**153,775**	**2,352**	**15·3**

Table 9.

Death-rates in the 77 Great Towns of England and Wales, 1911, based upon the estimated population at Mid-summer as given by the Registrar-General.

	Town.	Death-rate.		Town.	Death-rate.
1	Kings Norton	8·9	40	Gateshead	15·3
2	Hornsey	9·1	41	**Rhondda**	**15·3**
3	Handsworth (Staffs)	10·1	42	Warrington	15·4
4	Walthamstow	11·1	43	Wolverhampton	15·4
5	Reading	11·4	44	Huddersfield	15·6
6	Willesden	11·5	45	Merthyr Tydfil	15·6
7	Bournemouth	11·6	46	Tynemouth	15·6
8	East Ham	11·6	47	West Bromwich	15·6
9	Leyton	11·8	48	Bolton	15·7
10	Croydon	11·9	49	Bury	15·8
11	Ipswich	12·4	50	Newcastle-on-Tyne	15·8
12	Barrow-in-Furness	12·5	51	Sheffield	15·8
13	Wallasey	12·5	52	Walsall	15·8
14	Burton-on-Trent	12·7	53	Birkenhead	15·9
15	Northampton	12·8	54	Leeds	15·9
16	Leicester	13·0	55	Rotherham	15·9
17	Hastings	13·1	56	Stockport	15·9
18	Tottenham	13·1	57	Blackburn	16·0
19	York	13·1	58	Nottingham	16·0
20	Devonport	13·2	59	Birmingham	16·4
21	Newport (Mon.)	13·5	60	Salford	16·4
22	Brighton	13·7	61	Stockton on-Tees	16·4
23	Cardiff	13·7	62	Plymouth	16·5
24	Smethwick	13·7	63	Hull	16·6
25	Norwich	14·0	64	South Shields	16·7
26	Derby	14·1	65	Preston	16·8
27	Portsmouth	14·2	66	Swansea	16·9
28	Coventry	14·3	67	Manchester	17·0
29	Grimsby	14·4	68	Dewsbury	17·5
30	Great Yarmouth	14·5	69	Bootle	17·6
31	Halifax	14·7	70	Sunderland	17·6
32	London	14·7	71	Oldham	17·7
33	Aston Manor	14·8	72	Wigan	17·7
34	Bradford	14·8	73	Burnley	17·9
35	Bristol	14·8	74	St. Helens	18·1
36	West Hartlepool	14·8	75	Middlesbrough	19·2
37	Southampton	14·9	76	Stoke-on-Trent	19·6
38	Rochdale	15·1	77	Liverpool	19·8
39	West Ham	15·2			

Table 10.

Rates of Mortality in the Rhondda of Children under one year of age from the principal infantile diseases per 1,000 births during 1901-1911.

Cause of Death	1901		1902		1903		1904		1905		1906		1907		1908		1909		1910		1911	
	Total Deaths.	Rate per 1,000 Births.	Total Deaths.	Rate per 1,000 Births.	Total Deaths.	Rate per 1,000 Births.	Total Deaths.	Rate per 1,000 Births.	Total Deaths.	Rate per 1,000 Births.	Total Deaths.	Rate per 1,000 Births.	Total Deaths.	Rate per 1,000 Births.	Total Deaths.	Rate per 1,000 Births.	Total Deaths.	Rate per 1,000 Births.	Total Deaths.	Rate per 1,000 Births.	Total Deaths.	Rate per 1,000 Births.
All Causes ...	1020	222	883	178	778	158	925	190	927	199	828	174	782	162	1002	184	724	130	770	137	902	164
Diarrhœa ...	267	58	52	10	88	17	173	35	148	31	161	34	123	25	271	50	99	18	94	17	246	45
Debility ...	138	30	153	30	107	21	146	30	148	31	147	31	131	27	116	21	131	23	114	20	100	18
Convulsions ...	188	41	171	34	130	26	123	25	143	30	82	17	109	23	113	21	82	15	94	17	105	19
Lung Diseases (except Tubercular)	134	29	192	38	134	27	150	30	197	42	153	32	177	37	177	32	116	21	146	26	102	19
Premature Birth	74	16	53	10	84	17	69	14	62	13	69	15	68	14	88	16	93	17	85	15	85	15
Dentition ...	30	6	34	6	35	7	23	4	23	5	8	2	8	2	9	2	8	1	10	2	—	—
Whooping Cough	18	3	21	4	27	5	25	5	22	5	13	3	19	4	34	6	17	3	25	4	8	1
Tubercular Diseases...	9	1	20	4	12	2	18	3	27	6	17	4	12	3	15	3	12	2	9	2	14	3
Measles ...	2	·2	38	7	2	·4	32	6	24	5	8	2	21	5	28	5	9	2	11	2	34	6

Table 11.

Deaths under one year of age in the different Wards during 1911, from the following diseases:—

Cause of Death.	Ward 1	Ward 2	Ward 3	Ward 4	Ward 5	Ward 6	Ward 7	Ward 8	Ward 9	Ward 10
Measles	1	14	—	—	9	7	2	—	1	—
Scarlet Fever ...	—	—	—	—	—	—	—	1	—	—
Whooping Cough ...	1	—	1	1	—	—	—	1	1	3
Diphtheria	—	—	—	1	1	—	—	—	—	1
Membranous Croup ...	—	—	—	—	1	—	—	—	—	—
Epidemic Influenza ...	—	—	—	—	—	—	—	—	—	—
Diarrhœa ...	20	15	17	23	21	22	12	25	37	54
Erysipelas ...	—	—	—	—	—	—	—	1	—	1
Accidents (General) ...	2	2	—	1	2	3	2	—	6	1

Table 12.

Showing the number of deaths in the Rhondda from the principal Zymotic Diseases since 1891.

Year.	Small-Pox.	Measles.	Scarlet Fever.	Whooping Cough.	Diphtheria.	Fevers.			Diarrhœa.	Total Zymotic Deaths.	Zymotic Death-rate.	Average Zymotic Death-rate of Ten Years.
						Typhus	Enteric.	Simple Continued.				
1891	—	49	89	17	17	—	25	—	38	235	2·6	
1892	—	44	43	19	20	—	32	—	46	204	2·2	
1893	1	43	23	12	30	—	91	1	85	286	3·0	
1894	—	13	12	30	29	—	28	—	28	140	1·4	
1895	—	79	27	72	66	—	25	—	75	344	3·4	
1896	—	38	43	63	54	—	28	3	144	373	3·6	3·2
1897	—	138	19	52	78	—	28	—	61	376	3·6	
1898	—	16	14	33	146	—	40	1	105	355	3·3	
1899	—	—	10	70	186	—	55	—	169	489	4·4	
1900	—	121	35	58	125	—	24	—	118	481	4·3	
1901	—	3	43	33	135	—	53	—	327	595	5·2	
1902	1	109	27	40	81	—	21	—	109	389	3·3	
1903	—	8	38	52	42	—	44	—	109	293	2·4	
1904	—	102	20	53	32	—	42	—	211	460	3·7	
1905	—	84	11	55	16	—	15	1	172	354	2·7	
1906	—	24	9	27	25	—	20	—	206	311	2·4	2·9
1907	—	68	9	26	20	—	22	—	147	292	2·1	
1908	—	102	7	54	32	—	21	—	319	535	3·8	
1909	—	47	15	27	35	—	4	—	130	258	1·8	
1910	—	25	24	41	15	—	12	—	115	232	1·6	
1911	—	**144**	**19**	**18**	**21**	—	**18**	—	**313**	**533**	**3·5**	

Table 13.—Comparing the Death-rates from Zymotic Diseases during the years 1891-1911 in the Rhondda with those of similar diseases in England and Wales (per 1,000 living).

Year.	Small-pox.		Measles.		Scarlet Fever.		Whooping Cough.		Diphtheria.		FEVERS. Typhus.		FEVERS. Enteric		FEVERS. Simple-con.		Diarrhœa.		Tot'l Zymotic Deaths	Zymotic Death-rate.	
	Rhondda.	England and Wales.	Rhondda.	England and Wales.	Rhondda.	England and Wales.	Rhondda.	England and Wales.	Rhondda.	England and Wales.	Rhondda.	England and Wales.	Rhondda.	England and Wales.	Rhondda.	England and Wales.	Rhondda.	England and Wales.	Rhondda.	Rhondda.	England and Wales
1891	—	·002	·54	·44	·99	·17	·19	·47	·19	·17	—	·005	·27	·17	—	·01	·42	·47	235	3·7	2·7
1892	—	·01	·48	·46	·47	·19	·20	·45	·21	·22	—	·003	·35	·14	—	·008	·50	·50	204	2·2	2·7
1893	·01	·05	·45	·37	·24	·23	·12	·34	·32	·31	—	·005	·97	·23	·01	·009	·90	·95	286	3·0	3·1
1894	—	·03	·13	·39	·12	·16	·31	·41	·30	·29	—	·004	·29	.16	—	·007	·29	·35	140	1·4	2·2
1895	—	·007	·80	·38	·27	·15	·73	·31	·67	·26	—	·002	·25	·18	—	·005	·76	·87	344	3·4	2·8
1896	—	·02	·37	·57	·42	·18	·62	·43	·53	·29	—	·002	·27	·17	·02	·005	1·42	·55	373	3·6	2·5
1897	—	—	1·33	·10	·18	·14	·50	·31	·75	·24	—	—	·27	·15	—	—	·58	·85	376	3·6	2·1
1898	—	·01	·15	·41	·13	·11	·31	·31	1·37	·24	—	—	·37	·18	·009	—	·98	·96	355	3·3	2·2
1899	—	·01	—	·31	·09	·12	·64	·30	1·70	·29	—	—	·50	·20	—	—	1·55	·98	489	4·4	2·2
1900	—	·01	1·09	·39	·31	·12	·51	·34	1·12	·29	—	—	·21	·17	—	—	1·05	·69	481	4·3	2·0
1901	—	·01	·02	·27	·37	·13	·28	·30	1·18	·27	—	—	·46	·17	—	—	2·85	·91	597	5·2	2·0
1902	·008	·08	·89	·38	·23	·15	·34	·29	·68	·23	—	—	·18	·13	—	—	·92	·38	389	3·3	1·64
1903	—	·02	·06	·27	·31	·12	·42	·27	·34	·18	—	—	·35	·10	—	—	·90	·50	293	2·4	1·46
1904	—	·01	·81	·36	·16	·11	·42	·34	·26	·17	—	—	·34	·09	—	—	1·68	·86	460	3·7	1·94
1905	—	—	·65	·32	·09	·11	·43	·25	·13	·16	—	—	·12	·09	·008	—	1·34	·59	354	2·7	1·52
1906	—	—	·18	·27	·07	·10	·20	·23	·18	·17	—	—	·15	·09	—	—	1·55	·87	311	2·4	1·73
1907	—	—	·50	·36	·07	·09	·19	·29	·14	·16	—	—	·16	·07	—	—	1·08	·29	292	2·1	1·26
1908	—	—	·73	·22	·05	·08	·39	·27	·23	·15	—	—	·15	·07	—	—	2·27	·50	535	3·8	1·29
1909	—	—	·33	·35	·10	·09	·19	·20	·24	·14	—	—	·03	·06	—	—	·85	·28	258	1·8	1·12
1910	—	—	·17	·23	·16	·06	·27	·24	·10	·12	—	—	·08	·05	—	—	·77	·29	232	1·6	·99
1911	—	—	**·94**	**·36**	**·12**	**·05**	**·12**	**·21**	**·14**	**·13**	—	—	**·12**	**·07**	—	—	**2·03**	**1·06**	**533**	**3·5**	**1·88**

Table 14.

Actual number of deaths from All Causes and from the principal Zymotic Diseases in each Ward during 1911.

Wards.	Population.	All Causes.	Zymotic.	Small Pox.	Measles.	Scarlet Fever.	Whooping Cough.	Diphtheria.	Typhoid Fever.	Diarrhœa
1	12,421	228	40	—	12	—	1	4	1	22
2	16,225	262	69	—	36	10	—	—	2	21
3	12,182	183	29	—	—	1	1	2	4	21
4	12,018	181	40	—	2	1	1	3	3	30
5	15,698	217	76	—	44	—	4	2	—	26
6	14,873	216	57	—	28	1	—	2	—	26
7	12,389	187	37	—	15	3	1	—	2	16
8	17,150	254	40	—	—	3	2	—	1	34
9	22,333	355	74	—	7	—	3	5	5	54
10	18,486	269	71	—	—	—	5	3	—	63
Rhondda ...	153,775	2,352	533	—	144	19	18	21	18	313

Table 15.

The Death-rate per 1,000 from All Causes and from the principal Zymotic Diseases in the 10 Wards during 1911.

Wards.	All Causes.	Zymotic.	Small Pox.	Measles.	Scarlet Fever.	Whooping Cough.	Diphtheria.	Typhoid Fever.	Diarrhœa and Epidemic Enteritis.
1	18·4	3·2	—	·9	—	·08	·3	·08	1·8
2	16·2	4·3	—	2·2	·62	—	—	·12	1·3
3	15·0	2·4	—	—	·08	·08	·2	·32	1·7
4	15·1	3·3	—	·17	·08	·08	·24	·24	2·5
5	13·8	4·9	—	2·8	—	·3	·13	—	1·66
6	14·5	3·8	—	1·88	·07	—	·14	—	1·75
7	15·1	3·0	—	1·2	·2	·08	—	·2	1·3
8	14·8	2·4	—	—	·17	·12	—	·06	2·0
9	15·9	3·3	—	·3	—	·13	·22	·2	2·4
10	14·6	3·9	—	—	—	·3	·16	—	3·4
Rhondda	15·3	3·5	—	·94	·12	·12	·14	·12	2·03

Table 16.

Incidence of Notifiable Infectious Diseases in the Administrative County of Glamorgan and in the County Boroughs situated in the County of Glamorgan.

	Population (1911 Census).	Small-pox.		Scarlet Fever.		Diphtheria.		Enteric Fever.		Puerperal Fever.		Erysipelas.	
		Cases.	Rate.	Cases.	Rate.	Cases.	Rate.	Cases.	Rate.	Cases.	Rate.	Cases.	Rate.
Administrative County ...	742,998	—	—	3,405	4·58	811	1·09	339	·46	57	·08	343	·46
County Boroughs :—													
Cardiff	182,259	—	—	753	4·13	491	2·69	44	·24	8	·04	127	·70
Merthyr Tydvil	80,990	—	—	212	2·61	46	·57	43	·53	7	·09	22	·27
Swansea	114,663	—	—	330	2·87	164	1·43	13	·11	3	·03	38	·33

Table 17.

Incidence of Notifiable Infectious Diseases in the Boroughs, Urban Districts and Rural Districts in the County of Glamorgan.

	Population (1911 Census.)	Small-pox.		Scarlet Fever.		Diph-theria.		Enteric Fever.		Puer-peral Fever.		Erysi-pelas.	
		Cases.	Rate.	Cases.	Rate.	Cases.	Rate.	Cases.	Rate.	Cases.	Rate.	Cases.	Rate.
Boroughs and Urban Districts :—													
Aberavon ...	10,506	—	—	7	·67	13	1·24	9	·86	1	·10	2	·19
Aberdare ...	50,844	—	—	280	5·50	55	1·08	4	·08	4	·08	14	·28
Barry ...	33,767	—	—	87	2·57	41	1·21	12	·35	2	·06	41	1·21
Bridgend ...	8,021	—	—	38	4·74	4	·50	1	·12	—	—	4	·50
Briton Ferry ...	8,474	—	—	9	1·06	2	·24	1	·12	1	·12	—	—
Caerphilly ...	32,850	—	—	278	8·46	48	1·46	14	·43	4	·12	21	·64
Cowbridge ...	1,167	—	—	2	1·71	—	—	1	·86	—	—	1	·86
Gelligaer ...	35,521	—	—	109	3·07	16	·45	16	·45	6	·17	17	·48
Glyncorrwg ...	8,689	—	—	203	23·36	3	·35	15	1·73	—	—	26	2·99
Maesteg ...	24,977	—	—	20	·80	25	1·0	10	·40	—	—	5	·20
Margam ...	14,717	—	—	59	4·01	15	1·02	4	·27	—	—	17	1·16
Mountain Ash ...	42,256	—	—	258	6·08	49	1·16	15	·35	8	·19	13	·31
Neath ...	17,590	—	—	28	1·59	20	1·14	7	·40	1	·06	11	·63
Ogmore and Garw	26,747	—	—	101	3·78	47	1·76	4	·15	5	·19	1	·04
Oystermouth ...	6,098	—	—	15	2·46	15	2·46	—	—	1	·16	5	·82
Penarth ...	15,488	—	—	22	1·42	8	·52	2	·13	1	·06	1	·06
Pontypridd ...	43,215	—	—	124	2·86	35	·81	35	·81	4	·09	17	·39
Porthcawl ...	3,443	—	—	4	1·16	—	—	—	—	—	—	1	·29
Rhondda ...	**152,798**	—	—	**396**	**5·84**	**127**	**·83**	**133**	**·87**	**12**	**·08**	**69**	**·45**
Rural Districts :—													
Cowbridge ...	7,935	—	—	34	4·28	12	1·51	3	·38	1	·13	2	·25
Gower ...	8,618	—	—	12	1·39	28	3·25	1	·12	—	—	—	—
Llandaff & Dinas Powis ...	33,208	—	—	73	2·20	48	1·45	4	·12	2	·06	10	·30
Llantrisant and Llantwit Vardre	17,486	—	—	59	3·37	14	·80	25	1·43	1	·06	4	·23
Neath ...	41,619	—	—	242	5·81	125	3·0	5	·12	2	·05	7	·17
Penybont ...	22,330	—	—	172	7·70	15	·67	8	·36	1	·04	31	1·39
Pontardawe ...	31,507	—	—	135	4·28	15	·48	5	·16	—	—	17	·54
Swansea ...	43,239	—	—	138	3·19	31	·72	5	·12	—	—	6	·14

Table 18.

Showing the number of cases, and incidence of the Notifiable Diseases in the Rhondda since compulsory notification was adopted in 1894.

Year	Cases Notified.	Estimated Population.	Incidence per 1,000 of Population.
1894	625	95,904	6·6
1895	933	98,356	9·5
1896	1,241	100,870	12·3
1897	1,031	103,445	9·9
1898	1,652	106,094	15·6
1899	2,700	108,807	24·8
1900	3,214	111,587	28·8
1901	3,039	114,587	26·5
1902	1,879	118,020	15·9
1903	1,597	121,557	13·1
1904	1,240	125,199	9·9
1905	534	128,951	4·1
1906	779	132,814	5·9
1907	773	136,794	5·7
1908	862	140,894	6·1
1909	1,091	145,116	7·5
1910	1,530	149,464	10·2
1911	1,240	153,775	8·1

Table 19.—Scarlet Fever Notifications in the Ten Wards 1894-1911.

WARDS.	1894	1895	1896	1897	1898	1899	1900	1901	1902	1903	1904	1905	1906	1907	1908	1909	1910	1911
1	86	152	46	82	35	12	63	147	72	21	36	26	11	15	53	67	201	38
2	86	67	40	136	94	56	158	145	33	26	26	15	37	29	120	43	84	286
3	79	89	24	82	77	23	158	66	92	11	18	26	23	9	15	10	132	112
4	69	122	90	44	64	12	228	210	46	72	32	17	31	32	59	51	114	124
5	2	85	200	74	5	26	402	116	22	73	68	1	16	8	61	110	92	49
6	8	26	203	29	12	13	242	79	21	117	68	36	77	19	11	53	104	26
7	28	61	76	11	6	25	129	120	39	157	22	6	44	30	45	25	141	62
8	47	22	202	65	40	47	91	106	241	114	20	19	90	19	36	82	199	66
9	23	57	86	26	53	224	91	213	94	157	58	29	16	33	37	205	153	117
10	13	24	6	25	22	96	266	191	173	124	100	28	17	150	70	155	36	17
Rhondda	**441**	**704**	**973**	**574**	**408**	**534**	**1,828**	**1,393**	**833**	**872**	**448**	**203**	**362**	**346**	**507**	**801**	**1,256**	**897**

Table 20.—Scarlet Fever cases notified each month in the respective Wards in the Rhondda during 1911.

Wards.	1		2		3		4		5		6		7		8		9		10		Monthly Total.	
Cases.	Cases Notified.	Primary Cases.	Cases Notified.	Primary Cases.	Cases Notified.	Primary Cases.	Cases Notified.	Primary Cases.	Cases Notified.	Primary Cases.	Cases Notified	Primary Cases.	Cases Notified	Primary Cases.	Cases Notified	Primary Cases.	Cases Notified.	Primary Cases.	Cases Notified.	Primary Cases.	Cases Notified.	Primary Cases.
January ...	4	4	13	13	39	32	18	10	1	1	10	6	2	2	10	8	26	21	3	2	126	99
February ...	6	6	4	4	24	17	24	16	1	1	2	2	2	1	21	17	6	4	2	1	92	69
March ...	10	10	7	4	11	7	18	12	3	2	1	1	4	4	15	10	8	5	1	1	78	56
April ...	5	5	5	4	10	6	12	6	3	1	—	—	8	6	4	4	6	6	2	2	55	40
May ...	3	3	9	9	8	5	5	4	1	1	—	—	4	4	6	6	8	7	1	1	45	40
June ...	2	2	27	21	2	2	7	5	1	1	1	1	10	8	2	2	3	3	1	1	56	46
July ...	—	—	18	14	2	2	10	8	—	—	5	4	1	—	1	1	2	2	—	—	39	31
August ...	1	1	13	12	—	—	3	3	6	3	3	2	5	5	1	1	1	1	1	1	34	29
September ...	3	3	51	44	5	3	3	3	1	1	—	—	7	6	2	2	9	8	2	2	83	72
October ...	—	—	36	30	4	4	2	2	5	4	2	1	6	6	2	2	13	8	1	1	71	58
November ...	2	2	61	46	3	2	7	6	10	9	—	—	9	8	1	1	11	10	2	1	106	85
December ...	2	2	42	29	4	4	15	12	17	12	2	2	4	2	1	1	24	21	1	1	112	86
Rhondda ...	**38**	**38**	**286**	**230**	**112**	**84**	**124**	**87**	**49**	**36**	**26**	**19**	**62**	**52**	**66**	**55**	**117**	**96**	**17**	**14**	**897**	**711**

Table 21.

Ages of those attacked with Scarlet Fever in the Rhondda during 1911.

Ages.	Under 1 Year.	1 to 2 Years.	2 to 3 Years.	3 to 4 Years.	4 to 5 Years.	5 to 12 Years.	12 to 15 Years.	15 to 25 Years.	25 Years & Upwards.	All Ages.
Cases	11	46	78	74	114	483	46	34	11	897
Deaths	1	5	2	4	4	3	—	—	—	19
Per Cent. of Deaths to Cases	9·1	10·9	2·6	5·4	3·5	·6	—	—	—	2·1

Table 22.

Number of cases and deaths from Scarlet Fever in the Rhondda with case mortality during the years 1894—1911.

Year.	Number of Cases Notified.	Number of Deaths.	Mortality per cent. of Cases.
1894	441	12	2·7
1895	704	27	2·7
1896	973	43	4·4
1897	574	19	3·1
1898	408	14	3·4
1899	534	10	1·8
1900	1,828	35	1·9
1901	1,393	43	3·0
1902	833	27	4·3
1903	872	38	4·3
1904	448	20	3·4
1905	203	11	5·4
1906	362	9	2·5
1907	346	9	2·6
1908	507	7	1·4
1909	801	15	1·9
1910	1,256	24	1·9
1911	897	19	2·1

Table 23.

Scarlet Fever Notifications 1911, and ages of those attacked.

Wards.	Under 1 Year.	1 to 2 Years.	2 to 3 Years.	3 to 4 Years.	4 to 5 Years.	5 to 12 Years.	12 to 15 Years.	15 to 25 Years.	25 Years and Upwards.	Total.
1 ...	—	1	4	3	8	17	3	1	1	38
2 ...	3	12	31	25	33	164	8	6	4	286
3 ...	—	6	6	11	13	58	10	7	1	112
4 ...	3	8	10	10	23	61	3	5	1	124
5 ...	—	3	3	8	3	26	3	2	1	49
6 ...	—	1	2	3	1	15	2	1	1	26
7 ...	2	6	2	4	11	32	2	3	—	62
8 ...	1	4	4	1	8	37	7	4	—	66
9 ...	2	5	14	7	14	62	7	4	2	117
10 ...	—	—	2	2	—	11	1	1	—	17
Rhondda ...	**11**	**46**	**78**	**74**	**114**	**483**	**46**	**34**	**11**	**897**

Table 24.

Scarlet Fever cases in the Rhondda during 1911.

Wards.	Total fresh Cases.	Newly Infected Houses.	Ages of first attacked.				Attending no School.
			Under 3 Years.	3 to 5 Years.	5 to 12 Years.	12 Years and Upwards.	
1 ...	38	38	5	11	17	5	17
2 ...	286	230	32	47	138	13	87
3 ...	112	84	9	15	47	13	31
4 ...	124	87	12	28	42	5	33
5 ...	49	36	5	7	21	3	16
6 ...	26	19	1	3	12	3	10
7 ...	62	52	9	11	27	5	19
8 ...	66	55	5	9	32	9	19
9 ...	117	96	16	18	53	9	48
10 ...	17	14	2	2	9	1	6
Rhondda ...	**897**	**711**	**96**	**151**	**398**	**66**	**286**

Table 25.

Particulars as to the number of occupants in Scarlet Fever infected houses.

Wards.	Number of Houses.	Number of Houses letting Lodgings.	Number of Occupants.			Persons per house.
			Occupiers.	Lodgers.	Total.	
1 ...	38	17	199	40	239	6·3
2 ...	230	111	1,318	231	1,549	6·7
3 ...	84	37	435	87	522	6·2
4 ...	87	39	486	83	569	6·5
5 ...	36	20	175	54	229	6·4
6 ...	19	14	101	34	135	7·1
7 ...	52	24	263	51	314	6·1
8 ...	55	22	297	47	344	6·3
9 ...	96	59	512	117	629	6·6
10 ...	14	7	75	17	92	6·6
Rhondda ...	711	350	3,861	761	4,622	6·5

Table 26.—Diphtheria Notifications in the Ten Wards 1894—1911.

WARDS.	1894	1895	1896	1897	1898	1899	1900	1901	1902	1903	1904	1905	1906	1907	1908	1909	1910	1911
1	13	21	3	16	24	12	13	20	22	20	10	12	3	9	4	8	5	16
2	5	4	8	68	92	59	96	135	174	36	10	9	5	6	10	2	9	17
3	1	4	—	41	6	8	126	63	74	92	14	8	6	19	8	12	4	11
4	—	6	12	20	22	4	119	292	100	42	31	32	17	16	20	24	19	15
5	4	6	14	8	1	123	93	78	14	19	32	12	18	9	7	12	10	10
6	—	—	12	21	139	177	28	71	8	16	70	19	30	12	9	14	8	3
7	1	—	—	17	22	110	34	24	17	16	17	7	13	7	19	8	13	13
8	3	14	7	16	348	803	195	151	98	47	13	19	25	15	28	10	5	9
9	2	4	3	26	129	283	91	63	79	24	11	9	15	16	45	36	18	15
10	—	7	20	14	100	225	307	231	171	15	6	12	62	68	35	51	15	17
Totals ...	29	66	79	247	883	1804	1102	1128	757	327	214	139	194	177	185	177	106	126
Deaths ...	29	66	54	78	146	186	125	135	81	42	32	16	25	20	32	35	15	21
Per cent. of deaths to cases	100	100	68·3	31·5	16·8	10·3	11·3	11·9	10·7	12·8	14·9	11·5	12·9	11·3	17·3	19·8	14·2	16·7

Table 27.—The number of Cases notified, and Deaths registered from Diphtheria during each month for the ten years 1902—1911.

Month.	1902.		1903.		1904.		1905.		1906.		1907.		1908.		1909.		1910.		1911.	
	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
January	80	5	47	4	27	2	16	1	18	3	34	5	16	4	12	1	10	1	21	5
February	68	3	31	3	17	2	13	2	11	3	20	1	14	2	18	3	7	—	16	2
March	93	6	28	3	18	4	16	1	11	3	13	1	13	—	18	5	13	1	7	1
April	97	10	34	7	17	3	14	1	19	1	14	2	15	2	19	6	6	1	13	1
May	55	1	20	3	11	3	8	2	11	1	17	2	17	2	14	4	8	1	11	4
June	58	8	23	2	20	5	8	—	10	—	5	1	18	3	8	2	8	2	6	—
July	67	17	24	4	12	2	12	1	10	2	6	1	22	4	13	1	7	1	5	—
August	35	5	19	3	8	2	5	3	4	2	13	—	13	4	14	1	7	1	5	1
September	25	2	10	1	19	—	10	—	37	6	17	1	13	1	12	2	12	2	4	—
October	47	3	19	1	31	2	15	1	33	—	15	1	13	3	18	4	10	3	14	2
November	61	10	30	6	27	4	10	1	19	—	11	1	17	3	15	4	6	1	13	3
December	71	11	21	5	7	3	12	3	11	4	12	4	14	4	16	2	12	1	11	2
Totals	757	81	327	42	214	32	139	16	194	25	177	20	185	32	177	35	106	15	126	21

Table 23.—Diphtheria cases notified each month in the respective Wards in the Rhondda during 1911.

Wards.	1		2		3		4		5		6		7		8		9		10		Monthly Total.	
Cases.	Cases Notified.	Primary Cases.	Cases Notified.	Primary Cases.	Cases Notified.	Primary Cases.	Cases Notified.	Primary Cases.	Cases Notified.	Primary Cases.	Cases Notified.	Primary Cases.	Cases Notified.	Primary Cases.	Cases Notified.	Primary Cases.	Cases Notified.	Primary Cases.	Cases Notified.	Primary Cases.	Cases Notified.	Primary Cases.
January ...	3	2	6	6	2	2	2	2	1	1	1	1	3	3	—	—	2	2	1	1	21	20
February ...	3	3	3	3	2	1	4	4	—	—	—	—	—	—	2	1	2	2	—	—	16	14
March ...	2	2	—	—	—	—	1	1	1	1	—	—	1	1	—	—	1	1	1	1	7	7
April ...	2	2	—	—	—	—	—	—	5	5	—	—	1	1	4	4	1	1	—	—	13	13
May ...	1	1	—	—	2	2	1	1	—	—	—	—	3	3	1	1	2	2	1	1	11	11
June ...	2	2	1	1	—	—	1	1	—	—	—	—	2	2	—	—	—	—	—	—	6	6
July ...	—	—	1	1	—	—	—	—	1	1	—	—	—	—	—	—	2	2	1	1	5	5
August ...	—	—	2	2	1	1	1	1	—	—	—	—	—	—	—	—	1	1	—	—	5	5
September ...	—	—	2	2	1	1	—	—	—	—	—	—	1	1	—	—	—	—	—	—	4	4
October ...	2	2	2	2	1	1	2	2	—	—	—	—	1	1	—	—	1	1	5	5	14	14
November ...	—	—	—	—	2	1	2	2	1	1	—	—	1	1	—	—	2	2	5	3	13	10
December ...	1	1	—	—	—	—	1	1	1	1	2	2	—	—	2	2	1	1	3	2	11	10
Rhondda ...	**16**	**15**	**17**	**17**	**11**	**9**	**15**	**15**	**10**	**10**	**3**	**3**	**13**	**13**	**9**	**8**	**15**	**15**	**17**	**14**	**126**	**119**

Table 29.

Ages of those attacked with Diphtheria in the Rhondda during 1911, with case death-rate.

Ages.	Under 1 Year.	1 to 2 Years.	2 to 3 Years.	3 to 4 Years.	4 to 5 Years.	5 to 12 Years.	12 to 15 Years.	15 to 25 Years.	25 years and upwards.	All Ages.
Cases	7	9	12	7	11	65	5	8	2	126
Deaths	4	3	1	6	—	7	—	—	—	21
Per cent. of Deaths to Cases	57·1	33·3	8·3	85·7	—	10·8	—	—	—	16·7

Table 30.

Diphtheria Cases in 1911, and ages of those attacked.

Wards.	Under 1 Year.	1 to 2 Years.	2 to 3 Years.	3 to 4 Years.	4 to 5 Years.	5 to 12 Years.	12 to 15 Years.	15 to 25 Years.	25 Years and Upwards.	Total.
1 ...	—	2	—	1	2	7	3	—	1	16
2 ...	1	2	3	—	3	8	—	—	—	17
3 ...	—	1	2	1	—	7	—	—	—	11
4 ...	2	—	1	1	1	9	—	1	—	15
5 ...	2	—	—	1	—	3	—	4	—	10
6 ...	—	—	—	1	1	1	—	—	—	3
7 ...	1	—	1	1	1	9	—	—	—	13
8 ...	—	1	1	—	—	4	—	3	—	9
9 ...	—	1	3	—	1	8	1	—	1	15
10 ...	1	2	1	1	2	9	1	—	—	17
Rhondda ...	**7**	**9**	**12**	**7**	**11**	**65**	**5**	**8**	**2**	**126**

Table 31.

Diphtheria cases in the Rhondda during 1911.

Wards.	Total Fresh Cases.	Newly Infected Houses.	Ages of first attacked.				Attending no School.
			Under 3 Years.	3 to 5 Years.	5 to 12 Years.	12 Years & upwards.	
1 ...	16	15	1	3	7	4	8
2 ...	17	17	6	3	8	—	9
3 ...	11	9	2	1	6	—	3
4 ...	15	15	3	2	9	1	5
5 ...	10	10	2	1	3	4	7
6 ...	3	3	2	1	—	—	2
7 ...	13	13	2	2	9	—	5
8 ...	9	8	2	—	4	2	5
9 ...	15	15	4	1	8	2	6
10 ...	17	14	3	3	7	1	5
Rhondda ...	**126**	**119**	**27**	**17**	**61**	**14**	**55**

Table 32.

Particulars as to the number of occupants in Diphtheria infected houses during 1911.

Wards.	Number of Houses.	Number of Houses letting Lodgings.	Number of Occupants.			Persons per house.
			Occupiers.	Lodgers.	Total.	
1 ...	15	8	77	15	92	6·1
2 ...	17	7	89	10	99	5·8
3 ...	9	3	52	9	61	6·8
4 ...	15	2	90	4	94	6·3
5 ...	10	6	53	18	71	7·1
6 ...	3	3	15	3	18	6·0
7 ...	13	4	62	8	70	5·4
8 ...	8	2	44	4	48	6·0
9 ...	15	6	82	13	95	6·3
10 ...	14	6	80	17	97	6·9
Rhondda ...	**119**	**47**	**644**	**101**	**745**	**6·3**

Table 33.—Typhoid Fever Notifications.

Wards.	1894	1895	1896	1897	1898	1899	1900	1901	1902	1903	1904	1905	1906	1907	1908	1909	1910	1911
1	5	21	17	17	13	17	19	70	22	19	23	15	9	20	23	—	8	9
2	4	8	10	55	13	17	14	40	1	7	18	4	22	35	5	3	2	10
3	11	3	6	1	25	5	13	37	4	1	5	—	2	1	1	3	40	64
4	10	42	8	8	87	39	16	39	20	9	150	13	17	9	4	8	7	20
5	38	34	21	31	23	19	14	19	10	7	10	3	3	39	9	3	4	2
6	10	12	17	15	34	16	6	4	3	4	221	31	21	8	16	6	4	3
7	12	4	15	19	17	25	3	12	16	33	12	8	12	7	3	2	1	2
8	7	7	23	37	86	50	27	28	9	175	25	15	18	11	16	14	13	8
9	40	13	30	19	43	115	42	22	13	9	11	12	21	8	8	4	6	18
10	18	9	6	8	20	59	18	37	19	11	5	7	1	11	11	4	3	2
Rhondda	155	153	153	210	361	362	172	308	117	275	480	108	126	149	96	47	88	138

Table 34.—Typhoid Fever cases notified each month in the respective Wards in the Rhondda during 1911.

WARDS.	1		2		3		4		5		6		7		8		9		10		Monthly Total.	
Cases.	Cases Notified.	Primary Cases.	Cases. Notified.	Primary Cases.	Cases Notified.	Primary Cases.	Cases Notified.	Primary Cases.	Cases Notified.	Primary Cases.	Cases Notified	Primary Cases.	Cases Notified	Primary Cases.	Cases Notified	Primary Cases.	Cases Notified.	Primary Cases.	Cases Notified.	Primary Cases.	Cases Notified.	Primary Cases.
January ...	—	—	1	1	27	19	—	—	—	—	—	—	—	—	—	—	—	—	—	—	28	20
February ...	3	1	—	—	8	6	—	—	—	—	—	—	—	—	—	—	—	—	—	—	11	7
March ...	4	1	—	—	6	4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	10	5
April ...	—	—	—	—	3	2	—	—	—	—	—	—	1	1	2	2	—	—	—	—	6	5
May ...	1	1	—	—	2	1	1	1	1	1	2	1	—	—	—	—	—	—	—	—	7	5
June ...	—	—	—	—	2	2	1	1	1	1	—	—	—	—	—	—	1	1	—	—	5	5
July ...	—	—	3	2	1	—	—	—	—	—	—	—	—	—	—	—	1	1	—	—	5	3
August ...	—	—	3	2	5	5	1	1	—	—	—	—	—	—	2	2	9	5	2	2	22	17
September ...	1	1	1	1	1	1	10	9	—	—	—	—	1	1	2	2	6	5	—	—	22	20
October ...	—	—	—	—	6	6	5	2	—	—	1	1	—	—	2	1	—	—	—	—	14	10
November ...	—	—	—	—	3	3	1	1	—	—	—	—	—	—	—	—	—	—	—	—	4	4
December ...	—	—	2	2	—	—	1	1	—	—	—	—	—	—	—	—	1	1	—	—	4	4
Rhondda ...	9	4	10	8	64	49	20	16	2	2	3	2	2	2	8	7	18	13	2	2	138	105

Table 35.

Typhoid Fever in the Rhondda during 1911, and ages of those attacked, with case death-rate.

Ages.	Under 1 Year.	1 to 5 Years.	5 to 15 Years.	15 to 25 Years.	25 to 65 Years.	65 Years & Upwards.	All Ages.
Cases	2	18	52	25	41	—	138
Deaths	—	—	5	2	11	—	18
Per Cent. of Deaths to Cases ...	—	—	9·6	8·0	26·8	—	13·0

Table 36.

Showing the number of cases of Typhoid Fever, the number of deaths, and the case mortality since 1894.

Year.	Number of Cases Notified.	Number of Deaths.	Mortality per cent. of Cases.
1894	155	28	18·0
1895	153	25	16·0
1896	153	28	18·0
1897	210	28	13·0
1898	361	40	11·0
1899	362	55	15·0
1900	172	24	13·9
1901	308	53	16·8
1902	117	22	18·8
1903	275	44	16·0
1904	480	42	8·7
1905	108	16	14·8
1906	126	20	15·9
1907	149	22	14·8
1908	96	21	21·9
1909	47	4	8·5
1910	88	12	13·6
1911	**138**	**18**	**13·0**

Table 37.

Typhoid Fever Notifications, 1911, and ages of those attacked.

Wards.	Under 1 Year.	1 to 2 Years.	2 to 3 Years.	3 to 4 Years.	4 to 5 Years.	5 to 12 Years.	12 to 15 Years.	15 to 25 Years.	25 to 65 Years.	65 Years and upwards.	All Ages.
1 ...	—	—	1	—	1	4	—	2	1	—	9
2 ...	—	—	—	—	—	—	2	3	5	—	10
3 ...	2	3	3	4	3	15	7	10	17	—	64
4 ...	—	—	1	—	—	9	2	1	7	—	20
5 ...	—	—	—	—	—	1	—	1	—	—	2
6 ...	—	—	—	—	1	1	1	—	—	—	3
7 ...	—	—	—	—	—	—	1	—	1	—	2
8 ...	—	—	—	—	—	1	1	1	5	—	8
9 ...	—	—	—	—	1	2	4	6	5	—	18
10 ...	—	—	—	—	—	—	1	1	—	—	2
Rhondda ...	**2**	**3**	**5**	**4**	**6**	**33**	**19**	**25**	**41**	—	**138**

Table 38.

Particulars as to the number of occupants in Typhoid Fever infected houses during 1911.

Wards.	Number of Houses.	Number of Houses letting Lodgings.	Number of Occupants.			Persons per House.
			Occupiers.	Lodgers.	Total	
1 ...	4	1	28	2	30	7·2
2 ...	8	7	35	18	53	6·3
3 ...	49	22	273	40	313	6·1
4 ...	16	5	96	7	103	6·1
5 ...	2	—	10	—	10	5·0
6 ...	2	1	13	3	16	8·0
7 ...	2	—	12	—	12	6·0
8 ...	7	3	50	5	55	7·4
9 ...	13	7	70	18	88	6·3
10 ...	2	2	12	4	16	8·0
Rhondda ...	**105**	**48**	**599**	**97**	**696**	**6·6**

Table 39.

Details of Inspected Houses in which Notifiable Infectious Disease occurred during 1911.

Wards.	Number of Houses.	Number of Houses letting Lodgings.	Number of Occupants.			Persons per House.
			Occupiers.	Lodgers.	Total.	
1 ...	68	33	363	72	435	6·4
2 ...	257	125	1,454	259	1,713	6·7
3 ...	154	70	819	151	970	6·3
4 ...	122	49	688	103	791	6·5
5 ...	54	30	269	80	349	6·5
6 ...	29	21	149	45	194	6·7
7 ...	74	31	372	66	438	6·9
8 ...	77	32	423	67	490	5·4
9 ...	131	78	693	160	853	6·5
10 ...	46	27	235	66	301	6·6
Rhondda ...	1,012	496	5,465	1,069	6,534	6·5

Table 40.—Deaths from Diarrhœa in the 7th, 8th, 9th, 10th and 11th months together with the rainfall, and earth temperature at a depth of four feet.

Week Ended.	July.				August.					September.				October.				November	Totals.
	8	15	22	29	5	12	19	26	Sept 2	9	16	23	30	7	14	21	28	4	
Rainfall Inches ...	Nil.	Nil.	Nil.	·07	2·07	·24	Nil.	1·50	1·61	·03	·57	2·43	·80	·16	Nil.	1·40	1·51	4·80	
Mean temperature 4 feet deep ...	54	56	58	59	60	59	60	60	59	58	58	55	54	52	51	51	51	48	
Ward No. 1 ...	—	—	—	—	2	3	2	4	4	2	—	2	1	—	—	—	1	—	21
,, 2 ...	—	1	—	—	1	1	4	2	3	1	—	1	1	1	—	1	—	—	17
,, 3 ...	—	—	—	—	1	4	—	2	4	2	5	—	—	1	—	1	—	—	20
,, 4 ...	—	—	—	2	—	1	7	10	3	1	2	2	1	—	—	—	—	—	29
,, 5 ...	—	—	—	—	—	3	4	5	3	—	2	2	2	1	—	—	—	—	22
,, 6 ...	—	—	—	—	1	—	3	4	5	3	—	2	1	—	—	—	1	—	20
,, 7 ...	—	—	—	—	—	1	—	4	2	—	2	1	2	2	—	—	—	—	14
,, 8 ...	—	—	—	—	1	5	4	5	9	5	1	1	2	—	—	—	—	—	33
,, 9 ...	—	1	2	2	4	4	5	10	7	4	6	2	—	1	2	2	—	—	52
,, 10 ...	—	1	2	6	10	8	7	7	5	4	1	3	—	1	1	1	1	—	58
Rhondda ...	—	3	4	10	20	30	36	53	45	22	19	16	10	7	3	5	3	—	286

Table 41.—Puerperal Fever Notifications.

Wards.	1894	1895	1896	1897	1898	1899	1900	1901	1902	1903	1904	1905	1906	1907	1908	1909	1910	1911
1 ...	4	2	1	1	—	—	—	4	6	—	1	1	1	—	1	1	—	1
2 ...	2	2	3	1	—	3	2	3	4	2	3	—	2	2	—	—	1	—
3 ...	—	—	1	—	—	1	—	2	—	3	1	—	—	1	1	—	1	3
4 ...	—	4	—	—	—	—	—	—	3	1	—	3	3	5	1	4	1	2
5 ...	8	6	7	4	2	5	4	1	7	1	2	2	3	3	2	1	—	—
6 ...	1	1	5	4	5	4	3	6	4	1	6	2	1	5	6	2	2	1
7 ...	—	—	2	1	6	3	1	6	2	2	—	1	1	2	4	—	1	2
8 ...	1	2	2	4	3	4	2	2	—	2	5	1	1	3	1	1	—	1
9 ...	1	2	—	—	4	1	1	2	10	7	4	2	3	9	3	2	4	—
10 ...	—	1	—	1	1	2	6	2	7	2	—	1	3	1	4	2	3	2
Rhondda	17	20	21	16	21	23	19	28	43	21	22	13	18	31	23	13	13	12

Table 42.

Showing the number of deaths and death-rate from Puerperal Fever in the Rhondda during the years 1891—1911.

Year.	Number of Deaths.	Death-rate per 1,000	Average of Ten Years.
1891	24	·26	
1892	15	·16	
1893	20	·21	
1894	17	·17	
1895	12	·12	·15
1896	21	·20	
1897	10	·09	
1898	4	·03	
1899	16	·14	
1900	9	·08	
1901	21	·18	
1902	23	·19	
1903	11	·09	
1904	9	·07	
1905	4	·03	·09
1906	8	·06	
1907	16	·12	
1908	11	·08	
1909	5	·04	
1910	7	·05	
1911	8	·05	

Table 43.

Showing the number of deaths and death-rate from Phthisis in the Rhondda during the years 1891—1911.

Year.	Number of Deaths.	Death-rate per 1,000	Average of Ten Years.
1891	95	1·06	
1892	85	·93	
1893	77	·82	
1894	90	·93	
1895	82	·83	
1896	89	·88	·91
1897	108	1·04	
1898	103	·97	
1899	94	·86	
1900	83	·74	
1901	107	·93	
1902	99	·84	
1903	90	·75	
1904	115	·92	
1905	91	·71	
1906	82	·62	·77
1907	99	·72	
1908	103	·73	
1909	110	·76	
1910	113	·76	
1911	**113**	**·73**	

Table 44.

The following table gives the number of persons over 10 years of age, of known occupation, who died from Consumption during the year.

Blacksmith	1
Charwoman	1
Colliers	14
Colliery Blacksmith	1
,, Hauliers	4
,, Labourers	5
,, Lamplighter	1
,, Lampman	1
,, Repairers	3
,, Rider	1
,, Timberman	1
Dressmakers	2
Goldminer	1
Grocer	1
Hotel Keeper	1
Insurance Agent	1
Mason	1
Mason's Labourer	1
School Teachers	2
Servants (Domestic)	3
Shoemakers	2
Tailor	1

Table 45.

Causes of Death as recorded by Coroner's Inquests.

Year	1902	1903	1904	1905	1906	1907	1908	1909	1910	1911
Accidents in Collieries ...	44	59	56	213	54	55	48	66	60	51
Alcoholism ...	—	—	2	1	—	—	1	2	—	—
Aneurism ...	—	—	1	—	—	1	1	2	2	1
Apoplexy ...	2	4	3	—	1	4	2	3	2	4
Blood Poisoning ...	—	2	1	1	—	—	1	1	—	1
Burns ...	13	7	7	8	6	9	16	15	12	12
Convulsions ...	10	10	11	4	2	6	7	3	6	5
Crushed by Falling Building ...	—	—	—	—	—	—	1	—	—	—
Crushed by Railway Wagon ...	—	—	—	—	1	—	—	2	—	—
Crushed by Wheel ...	—	1	—	—	—	—	—	—	1	—
Diarrhœa ...	—	—	1	—	—	—	—	1	—	1
Drowning ...	2	4	1	1	4	3	7	2	10	2
Epileptic Seizure ...	—	—	—	—	—	—	—	3	2	2
Explosion ...	1	1	—	—	1	—	—	—	—	—
Exposure ...	—	—	—	—	-	—	—	1	—	—
Falls ...	9	8	8	10	5	13	8	10	7	8
Foreign Body in Air Passage ...	—	—	—	—	—	1	—	1	—	—
Found Dead ...	1	1	1	—	1	—	1	—	1	—
Fracture of Spine ...	—	—	—	1	2	—	—	—	1	—
Heart Disease ...	11	10	10	13	12	17	17	18	16	4
Hæmorrhage ...	—	—	2	2	1	1	2	2	1	—
Imperfect Respiration ...	—	—	—	—	—	—	—	1	—	1
Injury (character not stated) ...	—	—	—	—	—	1	—	—	1	—
Injury to Head ...	1	1	—	—	—	—	—	—	2	1
Kick of Horse ...	—	1	—	—	—	—	—	—	—	1
Malnutrition ...	—	—	—	—	—	—	2	—	—	1
Manslaughter ...	1	1	—	—	1	—	1	2	—	—
Meningitis ...	—	—	—	—	—	1	—	—	—	—
Murder ...	1	—	1	—	—	1	1	—	—	—
Myelitis ...	—	—	—	—	—	1	—	—	—	—
Natural Causes ...	5	3	2	7	1	1	4	1	1	3
Not Known ...	—	—	—	1	—	—	—	—	—	—
Old Age ...	—	—	—	—	—	—	1	—	—	2
Overlain ...	—	—	—	—	3	—	4	—	—	3
Peritonitis ...	—	—	1	—	—	—	1	—	—	—
Phthisis ...	—	—	—	—	—	—	—	—	—	1
Pneumonia ...	—	—	—	—	1	1	—	1	—	—
Poisoning ...	—	—	1	—	—	—	1	—	—	—
Poisoning (Ptomaine) ...	—	—	—	—	—	1	—	—	—	—
Premature Birth ...	—	—	—	—	—	—	—	1	—	2
Run over by Brake ...	—	—	—	—	—	—	1	—	—	—
Run over by Cart ...	1	4	2	5	—	3	3	—	2	3
Run over by Motor Car ...	—	—	—	—	—	—	1	2	—	2
Run over by Train ...	1	2	—	1	1	3	1	1	2	1
Run over by Tram ...	—	—	—	—	—	—	—	—	—	2
Scalds ...	6	4	7	3	13	7	12	8	6	9
Starvation ...	1	—	—	—	—	—	—	—	—	—
Suffocation ...	2	4	6	2	2	6	—	2	2	4
Suicide ...	2	1	1	4	8	3	9	7	11	5
Syncope ...	1	5	10	—	—	—	4	3	3	7
Rhondda ...	115	133	135	277	119	139	158	161	151	139

Table 46.

Showing the death-rate in the Rhondda, and the actual number of deaths from all causes, and from all causes excluding deaths from Colliery Explosions, during the years 1891—1911.

Year.	All Causes.			All causes except from Colliery Explosions.		
	Number of Deaths.	Death-rate per 1,000	Average of Ten Years.	Number of Deaths.	Death-rate per 1,000	Average of Ten Years.
1891	2,255	25·4		2,255	25·4	
1892	1,805	19·8		1,805	19·8	
1893	2,132	22·8		2,132	22·8	
1894	1,706	17·7		1,706	17·7	
1895	2,246	22·8	21·1	2,239	22·6	21·0
1896	2,105	20·8		2,049	20·4	
1897	2,049	20·1		2,049	20·1	
1898	1,979	18·8		1,979	18·8	
1899	2,419	22·4		2,419	22·4	
1900	2,227	19·9		2,227	19·9	
1901	2,469	21·2		2,469	21·2	
1902	2,243	18·6		2,243	18·6	
1903	1,998	16·4		1,998	16·4	
1904	2,345	18·7		2,345	18·7	
1905	2,402	18·6	17·3	2,250	17·4	17·1
1906	2,074	15·6		2,073	15·6	
1907	2,133	15·6		2,133	15·6	
1908	2,516	17·9		2,516	17·9	
1909	2,231	15·4		2,231	15·4	
1910	2,181	14·6		2,181	14·6	
1911	**2,352**	**15·3**		**2,352**	**15·3**	

Table 47.

Table of plans of new dwelling-houses passed since 1889, furnished by Mr. W. J. Jones, Engineer to the Council.

Year.	Houses.	Year.	Houses.
1889 ...	372	1900 ...	345
1890 ...	829	1901 ...	451
1891 ...	1,187	1902 ...	849
1892 ...	883	1903 ...	1,036
1893 ...	768	1904 ...	527
1894 ...	1,317	1905 ...	796
1895 ...	544	1906 ...	735
1896 ...	459	1907 ...	856
1897 ...	425	1908 ...	1,134
1898 ...	156	1909 ...	1,435
1899 ...	159	1910 ...	1,048
		1911 ...	718

Table 48.

Table of analysis of plans submitted to the Council in the course of the year 1911, furnished by Mr. W. J. Jones, Engineer to the Council.

STREET AND BUILDING PLANS.

	Plans submitted during the year ended 31st Dec. 1911.	Plans rejected during the year ended 31st Dec. 1911.	Total Approved.
Cottages and Villas ...	718	59	659
Shops ...	17	—	17
Lock-up Shops ...	5	2	3
Clubs ...	4	1	3
Halls and Theatres ...	8	2	6
Vestries, Chapels, and Churches ...	8	1	7
Stables ...	27	3	24
Coach-houses ...	15	1	14
Workshops ...	10	2	8
Urinals and W.C.'s ...	11	—	11
Alterations and Additions	214	19	195
New Streets ...	33	5	28
Schools ...	4	—	4
Dairies ...	2	—	2
Golf Pavilion ...	1	—	1
Surgery ...	1	1	—
Warehouses ...	2	—	2
Rescue Station ...	1	—	1
Offices ...	2	—	2
	1,083	96	987

Table 49.

Summary of Inspectors' Work 1911.

District.	1	2	3	4	5	6
Accumulation of Refuse ...	9	32	7	10	15	22
Accumulation of Manure ...	1	9	12	4	10	11
Blocked Drain ...	55	199	111	98	271	114
Blocked W.C. ...	21	134	61	84	61	66
Defective Drain ...	45	12	12	14	53	40
Lip Trap to Gully Trap ...	3	21	1	7	6	13
Unventilated Drain ...	—	—	—	—	—	3
Defective Ventilating Pipe ...	14	4	1	1	—	4
Waste Pipe Direct ...	—	—	—	1	—	—
No Water in W.C. ...	14	29	5	15	70	98
Dilapidated or Filthy W.C. ...	61	172	35	42	19	147
No W.C. ...	5	—	4	4	1	—
Dilapidated Back Area ...	31	194	14	52	46	115
Defective or no Rain Water Shoots...	30	45	60	35	26	73
Dirty Houses ...	7	4	2	3	9	7
Overcrowding ...	7	10	2	15	5	7
Animals as a Nuisance ...	7	7	2	1	10	10
Privy to W.C. ...	19	16	—	—	—	—
Damp and Dilapidated Houses...	33	80	20	46	62	118
Insufficient Water Supply ...	—	4	31	—	4	—
Other Nuisances ...	—	15	10	—	22	—

Table 50.

Summary of District Inspectors' work during 1911, as reported to M.O.H. each week.

Districts.	1	2	3	4	5	6
Cases of Infectious Disease investigated ...	382	357	96	124	153	115
Revisits to :—						
Infected Houses	2718	1033	357	691	1402	546
Unabated Nuisances	412	1318	758	741	1200	1965
Slaughter Houses	48	65	156	173	92	155
Lodging Houses	—	111	—	73	—	—
Bakehouses	34	23	105	195	157	223
Dairies	28	42	85	84	107	97
Factories and Workshops	6	47	3	98	7	116
House to House	123	651	135	545	739	828
New Buildings (drains of)	143	197	441	491	235	265
Special Complaints received	59	127	61	9	15	33
Letters written to abate Nuisances :—						
By Inspector	330	642	289	312	440	520
Referred to M.O.H.	38	74	37	29	40	131
Referred to Council	9	92	44	57	274	245
New Buildings certified	184	98	63	176	112	136
Drain Connections :—						
No. of Connections made	46	51	14	51	29	48
No. of Houses connected	170	66	32	175	56	167
No. of Houses connected to date ...	5121	4257	4468	3933	4900	4016
No. of Houses unconnected to date ...	96	29	66	79	77	73
Scavenging—Fines inflicted—						
Without Brush	—	7/6	—	—	—	—
Without Bell	—	—	—	—	—	—
Neglecting Back Lanes	—	—	—	5/-	—	—
Without cover to Cart	5/-	2/6	—	2/6	12/6	—
Scavenging after 1 p.m.	10/-	20/-	—	—	5/-	—
Depositing on unauthorized ground ...	—	42/6	—	27/6	22/6	—
Failing to send out Cart	—	—	—	—	—	—
Leaving Depôt Gate unlocked	—	—	—	—	—	—
Neglecting to use Broom	—	—	—	—	—	—
Improper use of Cover	—	—	—	—	—	—

Table 51.

Workshops and Workplaces in the Rhondda in each Inspector's District.

	1	2	3	4	5	6	Total.
Bootmakers ...	24	35	36	22	18	17	152
Bakers ...	31	29	28	25	22	26	161
Blacksmiths ...	3	4	4	4	4	3	22
Barbers ...	27	25	26	16	25	18	137
Basket-Makers ...	—	—	1	—	—	—	1
Carpenters ...	9	15	15	7	12	14	72
Fried Fish Shops ...	22	29	18	16	18	9	112
Coachmakers ...	1	1	3	4	—	1	10
Cycle Repairers ...	2	2	3	2	—	—	9
Dressmakers ...	59	39	32	8	23	38	199
Dressmakers and Milliners (comb).	2	1	1	—	6	3	13
Glaziers ...	3	5	2	—	2	1	13
Jewellers ...	4	7	7	1	4	9	32
Milliners ...	17	20	15	7	7	11	77
Knitters ...	—	—	—	—	1	—	1
Picture Framers ...	7	8	1	—	—	1	17
Printers ...	4	1	2	—	2	1	10
Plumbers ...	3	5	2	3	2	2	17
Saddlers ...	2	1	1	1	2	2	9
Monumental Masons	3	—	1	2	1	3	10
Sweet Makers ...	1	4	—	—	—	—	5
Tailors ...	22	22	8	7	6	9	74
Tinmen ...	—	1	1	1	3	1	7
Quarries ...	6	12	9	10	13	9	59
Totals ...	252	266	216	136	171	178	1219

Table 52.

Premises requiring Periodical Inspection.

District.	1	2	3	4	5	6	Whole District.
Bakehouses ...	33	30	28	24	22	26	163
Cowsheds ...	18	32	10	15	9	8	92
Dairies and Milkshops	32	36	27	26	17	18	156
Lodging Houses ...	—	7	—	2	—	—	9
Slaughter-houses ...	10	7	11	6	2	3	39
Offensive Trades ...	—	1	1	—	—	—	2

Rhondda Urban District.

TABLE I.

Vital Statistics of Whole District during 1911 and previous years.

Year.	Population estimated to Middle of each year.	Births.			Total Deaths registered in the District.		Transferable Deaths.		Nett Deaths belonging to the District.			
		Uncorrected Number.	Nett.						Under 1 year of age.		At all ages.	
			Number.	Rate.	Number.	Rate.	Of Non-Residents registered in the District.	Of Residents not registered in the District.	Number.	Rate per 1,000 nett births.	Number.	Rate.
1	2	3	4	5	6	7	8	9	10	11	12	13
1906	132,814	4,751		35·8	2,014	15·2	4	64	821	173	2,074	15·6
1907	136,794	4,831		35·3	2,068	15·1	4	69	782	162	2,133	15·6
1908	140,894	5,454		38·7	2,446	17·4	10	80	1,002	184	2,516	17·9
1909	145,116	5,577		38·4	2,163	14·9	6	74	724	130	2,231	15·4
1910	149,464	5,628		37·7	2,106	14·0	13	88	770	137	2,181	14·6
1911	**153,775**	**5,463**	**5,491**	**35·7**	**2,276**	**14·8**	**18**	**94**	**902**	**164**	**2,352**	**15·3**

Notes :—This table is arranged to show the gross births and deaths in the district and the births and deaths properly belonging to it with the corresponding rates. For years before 1911 the corrected number of births is not available.

Rates in Columns 5, 7, and 13 are calculated per 1,000 of estimated population, corrected since census figures of 1911 became available.

The deaths included in Column 6 are the whole of those registered during the year as having actually occurred within the district. The deaths included in Column 12 are the number in Column 6, corrected by the subtraction of the number in Column 8, and the addition of the number in Column 9. Deaths in Column 10 are similarly corrected by the subtraction of deaths under one, included in the number given in Column 8, and by addition of the deaths under one included in the number given in Column 9.

"Transferable Deaths" are deaths of persons who, having a fixed or usual residence in England or Wales, die in a district other than that in which they resided.

Area of District in acres (exclusive of area covered by water) 23,885.

At Census of 1911.

Total Population at all ages 152,781

Number of Inhabited houses 26,833
Average number of persons per house 5·69

Number of Schedules returned 29,434
Average number of persons per family 5.19

Table II. RHONDDA URBAN DISTRICT.

Cases of Infectious Disease notified during the year 1911.

Notifiable Disease.	Cases Notified in the whole District.								Total Cases notified in each Ward.										No. of Cases Removed to the Hospital from each Ward.										
	At all ages.	At Ages—Years.							1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10	Total Cases removed to Hospital.
		Under 1	1 to 5	5 to 15	15 to 25	25 to 45	45 to 65	65 and upwards.																					
Small-pox	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Cholera	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Diphtheria (including Membranous Croup) ...	126	7	39	70	8	1	1	...	16	17	11	15	10	3	13	9	15	17	2	...	1	3	1	...	4	2	1	...	14
Erysipelas	67	2	3	5	7	29	17	4	10	2	10	2	6	4	5	6	7	15	...	...	...	...	...	...	...	...	...	...	...
Scarlet Fever	897	11	312	529	34	11	...	...	38	286	112	124	49	26	62	66	117	17	6	43	12	47	4	10	10	4	16	5	157
Typhus Fever	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Enteric Fever	134	2	18	52	24	33	5	...	9	10	61	20	2	3	1	8	18	2	8	3	45	20	1	...	2	7	17	2	105
Relapsing Fever... ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Continued Fever	4	...	...	...	1	2	1	...	...	...	3	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Puerperal Fever	12	...	...	...	3	9	...	...	1	...	3	2	...	1	2	1	...	2	...	...	...	...	...	...	...	...	...	...	...
Plague	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Phthisis (Under Tuberculosis Regulations, 1908)	21	...	...	...	5	8	8	...	...	...	1	1	1	18	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Phthisis (Under Tuberculosis Regulations, 1911)																													
Phthisis (Others ... ...)																													
*Cerebro-Spinal Fever ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
TOTALS ...	1261	22	372	656	82	93	32	4	74	315	201	164	68	55	84	90	157	53	16	46	58	70	6	10	16	13	34	7	276

* Compulsorily notifiable since the 1st April, 1910.

The localities (Wards) adopted for this Table are the same as those in Table III.

Isolation Hospitals (Provided by the Urban District Council)—

1. Tyntyla Isolation Hospital (Ward 4)
2. Penrhys Isolation Hospital (Ward 9)

Total available beds 110.

Number of Diseases that can be concurrently treated 6

CAUSES OF DEATH.	Deaths in or belonging to the whole District at subjoined ages.									Deaths in or belonging to Wards (at all ages).										Total Deaths whether of "Residents" or "Non-Residents" in Public Institutions in the District
	All Ages.	Under 1 year.	1 and under 2	2 and under 5	5 and under 15	15 and under 25	25 and under 45	45 and under 65	65 and upwards.	Ward 1.	Ward 2.	Ward 3.	Ward 4.	Ward 5.	Ward 6.	Ward 7.	Ward 8.	Ward 9.	Ward 10.	
All causes (Certified	2341	894	218	151	98	101	264	366	249	227	261	181	181	214	215	186	253	355	268	...
All causes (Uncertified	11	8	...	...	...	...	...	...	3	1	1	2	...	3	1	1	1	...	1	...
Enteric Fever	18	...	...	...	5	2	10	1	...	1	2	4	3	...	...	2	1	5	...	...
Small Pox	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Measles	144	34	65	39	6	...	...	...	...	12	36	...	2	44	28	15	...	7	...	...
Scarlet Fever	19	1	5	10	3	...	...	...	...	...	10	1	1	...	1	3	3	...	...	...
Whooping Cough	18	8	4	6	...	...	...	...	...	1	...	1	1	4	...	1	2	3	5	...
Diphtheria and Croup	21	4	3	7	7	...	...	...	...	4	...	2	3	2	2	...	...	5	3	...
Influenza	9	...	...	...	...	2	...	5	2	...	...	...	...	1	1	...	1	2	4	...
Erysipelas	3	2	...	...	...	...	1	...	...	...	...	...	...	...	...	...	1	...	2	...
Cerebro-Spinal Fever	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Phthisis (Pulmonary Tuberculosis) ...	113	1	...	2	5	29	47	29	...	6	16	18	10	10	8	8	6	13	18	5
Tuberculous Meningitis	12	1	...	7	3	...	...	1	...	1	1	...	2	1	3	1	2	...	1	...
Tabes Mesenterica	6	4	1	1	...	...	...	...	...	...	...	1	1	1	1	1	...	...	1	...
General Tuberculosis	12	5	3	2	...	...	2	...	...	3	1	2	1	1	...	1	...	1	2	...
Other Tuberculous diseases	22	4	2	2	1	7	3	2	1	5	3	3	2	1	2	3	...	3	...	...
Rheumatic Fever	12	...	...	1	3	1	3	4	...	2	1	...	1	1	1	2	1	1	2	...
Cancer, Malignant disease	75	...	...	1	...	1	12	53	8	2	13	8	11	5	6	6	7	10	7	2
Venereal Diseases	3	3	...	...	...	...	...	...	...	...	2	...	...	...	...	...	1	...	...	...
Other Septic Diseases	23	4	2	1	4	4	5	3	...	1	3	1	2	1	...	...	5	5	5	...
Rickets	3	...	...	3	...	...	...	...	...	...	...	...	2	...	...	...	...	1	...	...
Diabetes	9	...	...	...	...	...	3	3	3	...	1	1	...	3	2	...	...	1	1	...
Pernicious Anæmia	8	...	...	...	...	1	2	4	1	1	1	2	1	1	...	1	1	...	...	...
Leucocythæmia	2	...	...	...	...	...	1	1	...	...	...	2	...	...	...	...	...	...	...	...
Meningitis	21	5	5	5	4	...	...	1	1	2	4	1	2	1	1	2	2	3	3	...
General Paralysis of Insane	7	...	...	...	...	1	5	1	...	1	...	1	1	...	1	1	1	1	...	...
Epilepsy	9	4	...	...	1	1	1	1	1	...	...	...	...	5	...	...	3	...	1	...

Table III.—*continued.*

Chorea	5	...	...	...	5	...	...	...	...	...	2	...	...	1	...	...	...	1	1	...
Convulsions	116	105	6	4	1	...	...	...	...	9	5	5	6	3	5	23	20	28	12	...
Cerebral Hæmorrhage	65	...	...	...	...	...	8	36	21	9	7	1	6	4	7	7	10	5	9	3
Embolism and Thrombosis	13	1	...	...	...	...	4	6	2	1	2	1	1	...	...	3	2	2	1	1
Other diseases of the Nervous System ...	9	...	...	...	...	...	5	4	...	...	...	...	1	3	...	1	...	2	2	...
Heart Disease	141	1	...	...	7	11	24	60	38	10	11	14	9	12	19	12	22	20	12	2
Heart Failure	7	1	...	...	...	...	1	5	...	...	2	...	1	1	...	1	...	2	...	...
Bronchitis, Acute	100	26	15	2	2	...	6	26	23	10	9	5	3	7	12	6	9	29	10	...
Bronchitis, Chronic	51	2	...	...	...	...	3	17	29	3	3	9	9	3	3	5	9	4	3	1
Broncho Pneumonia	137	72	33	21	3	2	2	4	...	20	11	11	6	11	16	19	13	19	11	...
Pneumonia other forms	62	2	2	5	4	5	18	19	7	10	6	5	3	8	8	4	8	6	4	...
Pleurisy	3	...	...	...	...	...	2	...	1	1	1	...	...	...	...	...	...	...	1	...
Other Diseases of the Respiratory Organs...	5	1	...	...	1	...	...	2	1	...	1	...	1	2	...	...	...	1	...	...
Diarrhœa	313	246	48	5	...	1	1	7	5	22	21	21	30	26	26	16	34	54	63	...
Gastritis	42	35	1	1	...	...	1	3	1	15	6	2	8	...	...	...	5	4	2	1
Enteritis	73	46	12	3	1	...	1	6	4	8	11	4	4	5	3	3	22	10	3	...
Gastric Ulcer	5	...	...	...	...	...	3	2	...	...	...	...	1	1	1	...	2	...	...	...
Appendicitis and Typhlitis	11	...	...	...	5	2	3	1	...	1	1	1	1	...	...	...	1	4	2	6
Peritonitis	12	3	...	...	1	1	3	4	...	2	2	1	1	...	1	2	2	1	...	...
Intestinal Obstruction	24	7	...	2	1	2	6	6	...	1	4	2	...	7	1	1	2	4	2	2
Alcoholism	4	...	...	...	...	...	2	2	...	1	1	1	...	...	1	...	...	...	...	...
Cirrhosis of Liver	7	...	...	...	...	...	3	4	...	...	...	...	...	...	1	2	1	2	1	...
Jaundice	3	3	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	2	...
Nephritis and Bright's Disease ...	52	1	...	3	2	1	18	17	10	5	...	9	5	5	5	2	3	11	7	2
Puerperal Fever	8	...	...	...	...	2	6	...	...	1	...	2	2	...	1	1	1	...	...	...
Puerperal Eclampsia	5	...	...	...	...	3	2	...	...	1	2	...	1	...	...	...	...	1	...	...
Other Accidents and Diseases of Pregnancy and Parturition	10	...	...	...	...	...	10	...	...	1	1	1	1	1	1	...	2	1	1	...
Congenital Malformations	20	17	3	...	...	...	...	...	...	2	1	3	1	...	1	1	1	7	3	...
Congenital Debility	100	100	...	...	...	...	...	...	...	10	8	3	15	11	10	6	3	17	17	1
Premature Birth	85	85	...	...	...	...	...	...	...	11	9	10	2	7	11	2	9	15	9	...
Marasmus	56	53	3	...	...	...	...	...	...	1	15	6	2	1	5	8	10	6	2	...
Dentition	2	...	1	1	...	...	...	...	...	1	...	...	...	1	...	...	...	...	...	...
Old Age	84	...	...	...	...	...	...	1	83	10	11	2	5	9	6	5	12	12	12	8
Heat Apoplexy	5	...	...	2	1	1	...	...	1	...	...	2	...	1	...	...	...	1	1	...
Violent Deaths (excluding Suicide) ...	115	6	3	13	20	18	33	17	5	17	10	10	8	4	11	6	11	20	18	8
Suicides	6	...	...	...	...	1	1	4	...	...	1	...	1	1	...	1	...	1	1	...
Other Defined Diseases	22	8	1	2	1	2	2	3	3	2	3	3	...	...	2	3	3	4	2	...
Diseases ill-defined or unknown ...	5	1	...	...	1	...	1	1	1	...	1	1	1	...	2	...	...	...	...	...

Table IV.—Rhondda Urban District. Infantile Mortality, 1911. Nett Deaths from stated causes at various ages under one year of age. (*continued on next page.*)

CAUSE OF DEATH.	Under 1 Week.	1-2 Weeks.	2-3 Weeks.	3-4 Weeks.	Total under 1 Month.	1-2 Months.	2-3 Months.	3-4 Months.	4-5 Months.	5-6 Months.	6-7 Months.	7-8 Months.	8-9 Months.	9-10 Months.	10-11 Months.	11-12 Months.	Total Deaths under One Year.
All Causes. Certified	130	43	40	22	235	82	74	68	58	70	38	56	63	51	47	52	894
All Causes. Uncertified	5	...	...	...	5	...	...	1	1	1	...	...	...	...	...	...	8
Small-pox	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Chicken-pox	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Measles	...	...	...	...	...	1	...	1	...	1	3	2	6	7	5	8	34
Scarlet Fever	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	1
Diphtheria and Croup	...	...	...	...	...	...	...	...	...	...	...	1	1	1	...	1	4
Whooping Cough	...	...	...	...	...	...	...	3	...	...	1	1	...	1	1	1	8
Diarrhœa	...	2	7	2	11	21	24	18	26	36	10	20	23	20	18	19	246
Enteritis	...	1	4	2	7	2	4	3	4	7	2	1	6	4	1	5	46
Tuberculous Meningitis	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	1
Abdominal Tuberculosis	...	...	...	...	...	1	2	4	...	...	...	...	1	...	...	...	8
Other Tuberculous Diseases	...	...	...	...	...	...	...	...	1	2	...	...	...	...	2	...	5
Congenital Malformations	6	2	2	2	12	...	1	...	1	1	...	1	...	...	...	1	17
Premature Birth	58	8	5	6	77	5	1	2	...	...	...	...	...	...	...	...	85
Atrophy, Debility, and Marasmus ...	44	16	11	6	77	21	20	12	5	5	4	5	1	...	1	2	153
Atelectasis	2	1	...	...	3	...	...	...	...	...	...	...	...	...	...	...	3
Injury at Birth	1	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	1

Table IV.—*continued.*

Erysipelas	...	...	...	...	...	...	1	...	...	...	...	...	1	...	...	...	...	2
Syphilis	...	...	...	...	...	...	2	...	1	...	...	...	...	...	...	...	...	3
Rickets	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Meningitis *(not Tuberculous)*	...	...	...	...	...	...	...	...	1	2	1	...	...	1	...	...	...	5
Convulsions	17	10	8	...	35	14	6	5	9	4	5	9	4	7	6	1	105
Gastritis	...	1	1	1	3	1	8	6	3	4	2	...	4	2	2	...	35
Laryngitis	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Bronchitis	...	...	...	...	...	4	3	2	2	2	4	3	3	2	1	2	28
Pneumonia (all forms)	...	...	...	3	3	4	3	7	3	7	5	7	11	5	10	9	74
Suffocation, overlying	1	...	...	...	1	2	...	...	...	...	...	1	...	...	...	...	4
Other Causes	6	2	2	...	10	3	2	4	3	1	2	4	2	...	...	3	34
Total	135	43	40	22	240	82	74	69	59	71	38	56	63	51	47	52	902

Nett Births in the year { Legitimate 5,355 / Illegitimate 136 }

Nett Deaths in the year of { Legitimate Infants 878 / Illegitimate Infants 24 }

Rainfall Returns at Ty'nywaun Waterworks, Treherbert.

Height above Sea Level, 801 feet.

Furnished by Mr. OCTAVIUS THOMAS, Water Engineer to the Council.

Month.	Year 1902				Year 1903				Year 1904			
	Total Depth.	Greatest fall in 24 hours.		Days ·01 or more fell.	Total Depth	Greatest fall in 24 hours.		Days ·01 or more fell.	Total Depth.	Greatest fall in 24 hours.		Days ·01 or more fell.
		Depth	*date*			*Depth*	*date*			*Depth*	*date*	
January ...	5·80	1·31	1	19	14·45	2·15	4	25	13·84	2·42	26	23
February ...	3·86	·90	22	11	7·83	1·11	22	21	10·20	1·31	12	24
March ...	5.19	·94	14	19	15·84	2·28	17	30	4·31	1·21	28	18
April ...	4·21	1·35	21	14	3·70	·98	25	16	6·07	1·39	2	18
May ...	3·99	·75	16	23	5·77	1·92	16	20	5·22	1·36	23	23
June ...	4·91	·70	30	19	1·85	·50	14	7	2·86	·95	14	10
July ...	3·67	1·24	26	14	4·90	1·48	21	19	5·67	1·10	22	17
August ...	4·53	·91	18	24	13·80	2·25	20	23	6·46	1·36	3	17
September ...	2·72	·82	2	15	9·19	1·61	8	20	5·32	1·23	30	14
October ...	7·97	1·89	13	22	20·56	2·90	14	31	5·67	1·79	16	15
November ...	7·90	1·41	24	18	6·60	1·48	27	21	6·30	1·44	9	16
December ...	9·90	2·46	16	17	8·96	1·41	12	19	8·71	1·60	4	24
Totals ...	64·70	2·46	16	215	113·45	2·90	14	252	80·63	2·42	26	219

	Year 1905				Year 1906				Year 1907			
January ...	3·90	·75	8	16	15·75	1·47	24	26	5·48	1·79	1	23
February ...	4·16	1·12	25	19	7·66	·87	9	22	5·13	1·03	19	14
March ...	11·92	2·21	10	23	6·77	1·52	10	16	5·17	1·84	16	14
April ...	8·26	1·20	30	26	1·65	·49	24	13	6·00	·86	20	21
May ...	·48	·34	1	5	7·93	1·54	5	22	4·96	·95	1	18
June ...	9·15	1·62	20	18	3·20	·70	28	15	11·61	1·31	14	27
July ...	2·58	1·12	1	16	2·34	·37	22	20	5·65	1·04	22	19
August ...	10·61	2·38	4	23	6·88	1·59	1	19	9·28	1·47	8	24
September ...	4·93	1·15	9	16	2·53	1·30	14	10	2·32	·57	2	8
October ...	4·16	·80	29	14	13·31	1·73	2	27	11·02	1·06	29	30
November ...	7·03	1·31	10	21	8·18	1·28	20	21	6·33	1·20	22	20
December ...	3·53	1·03	7	14	5·09	·69	5	24	13·22	1·86	4	23
Totals ...	70·71	2·38	4	211	81·29	1·73	2	235	86·17	1·86	4	241

	Year 1908				Year 1909				Year 1910			
January ...	8·35	2·11	16	18	4·30	·70	14	20	11·65	1·34	15	26
February ...	5·55	1·44	16	24	1·45	·71	9	9	11·65	1·34	14	27
March ...	7·58	1·28	4	23	7·96	1·56	24	24	3·30	1·07	1	8
April ...	4·55	1·13	27	18	6·71	1·71	22	16	5·85	1·16	12	22
May ...	6·74	1·39	5	20	2·85	1·13	24	9	4·43	·88	30	20
June ...	1·75	·60	13	9	5·27	1·18	21	16	7·58	1·52	24	17
July ...	8·41	2·18	9	13	6·33	1·20	27	23	8·29	1·50	20	19
August ...	10.36	2·56	31	15	3·05	·45	17	14	12·44	1·79	18	27
September ...	5·57	·99	3	23	7·80	2·78	28	12	·30	·16	14	7
October ...	3·87	·96	18	16	13·24	2·65	15	26	6·50	1·18	31	16
November ...	5·67	·93	21	17	4·26	1·87	28	16	10·22	1·43	13	23
December ...	8·92	1·41	15	27	17·12	2·44	10	25	14·69	1·55	14	28
Totals ...	77·32	2·56	31	223	86·34	2·78	28	210	96·90	1·79	18	240

RAINFALL RETURN AT TY'NYWAUN WATER-WORKS TREHERBERT

5-inch Gauge. 801 feet above Sea Level.

1911.

Month.	Total Depth.	Greatest fall in 24 hours.		Days ·01 or more fell.
		Depth	Date	
January...	5·12	1·03	6	17
February	10·64	1·44	18	18
March	3·77	1·34	10	19
April	6·23	1·36	21	17
May	5·83	1·70	3	11
June	6·32	1·30	17	16
July	·56	·30	29	5
August	6·50	·96	21	13
September	5·75	1·92	19	16
October...	6·02	1·52	21	15
November	14·64	1·72	15	23
December	24·70	2·03	8	29
Totals	96·08	2·03	Dec. 8	199

Meteorological Returns.—The Hospital, Ystrad-Rhondda.

(Height above Sea Level, 590 feet).

Month.	Year 1903.				Year 1904.				Year 1905.			
	Total Rainfall in Month in inches.	Greatest fall in 24 hours.	Date of Greatest fall	Days on which ·01 or more Rain fell.	Total Rainfall in Month in inches.	Greatest fall in 24 hours.	Date of Greatest fall.	Days on which ·01 or more Rain fell.	Total Rainfall in Month in inches.	Greatest fall in 24 hours.	Date of Greatest fall.	Days on which ·01 or more Rain fell.
January ...	11·62	1·82	4	20	11·70	2·00	26	8	2·26	·37	8	15
February ...	5·04	1·15	22	17	8·64	1·38	12	7	1·78	·40	25	12
March ...	13·51	2·22	17	23	3·52	1·00	28	17	11·09	1·97	10	22
April ...	2·44	·83	25	10	4·72	1·00	4	18	5·22	·78	28	20
May ...	4·46	1·57	16	18	4·70	1·54	23	14	·26	·14	31	2
June ...	1·74	·58	14	9	2·25	1·00	14	6	5·99	1·51	19	16
July ...	5·83	1·13	22	13	5·28	1·15	25	13	1·93	·65	1	11
August ...	12·40	1·79	14	26	5·43	1·27	21	17	8·23	1·71	4	17
September ...	7·46	1·24	10	20	5·10	1·00	30	13	4·89	1·60	8	12
October ...	17·74	1·98	14	31	3·21	1·24	7	11	4·34	1·12	30	13
November ...	4·53	1·24	27	18	5·27	1·43	7	14	6·76	1·18	22	19
December ...	7·61	1·29	3	16	7·09	1·04	4	21	2·87	·79	6	12
Totals ...	94·38	2·22	17	221	66·91	2·00	26	159	55·62	1·97	10	171

	Year 1906.				Year 1907.				Year 1908.			
January ...	12·53	1·66	16	23	4·00	1·41	1	13	6·03	1·47	16	12
February ...	5·47	1·10	15	21	3·94	1·06	19	12	4·27	1·75	16	22
March ...	4·36	1·05	10	11	3·64	1·20	15	11	4·20	1·30	5	13
April ...	1·43	·53	24	11	5·31	1·00	8	19	3·96	1·14	27	14
May ...	6·11	1·76	5	16	4·56	·94	1	17	4·24	·84	14	16
June ...	2·67	·85	28	11	7·64	1·31	14	25	·95	·30	11	5
July ...	1·19	·33	22	11	3·98	·69	22	14	6·17	1·86	9	13
August ...	5·04	1·10	24	16	6·81	1·33	1	21	7·78	2·06	31	16
September ...	1·72	·77	14	6	1·76	·45	1	8	4·24	·83	3	18
October ...	12·09	1·60	1	23	9·72	·82	10	30	4·01	1·70	19	12
November ...	6·32	1·25	20	16	4·69	1·06	22	18	4·58	·83	12	13
December ...	3·62	·40	9	18	11·55	1·75	4	20	6·88	1·04	9	25
Totals ...	62·55	1·76	5	183	67·60	1·75	4	208	57·31	2·06	31	179

	Year 1909.				Year 1910.				Year 1911.			
January ...	3·37	·82	15	15	9·39	1·13	31	20	3·13	·91	5	8
February ...	1·40	·59	9	5	9·57	1·60	14	26	7·78	1·71	27	14
March ...	6·89	1·73	24	23	2·88	1·01	1	6	2·92	1·47	10	7
April ...	4·96	1·22	22	14	4·20	1·05	12	16	4·37	1·22	20	10
May ...	2·38	·77	24	5	3·35	·87	30	20	3·23	1·38	3	6
June ...	3·17	·63	21	12	7·14	1·46	5	14	3·61	·68	17	16
July ...	3·66	1·14	27	18	5·22	1·27	24	15	·28	·20	31	3
August ...	2·66	·43	17	13	9·27	1·40	18	22	5·21	·87	28	15
September ...	4·58	1·48	28	11	·23	·14	14	3	3·83	1·30	19	13
October ...	13·00	1·90	7	20	5·60	1·03	18	16	5·02	1·37	29	15
November ...	3·20	1·21	28	9	8·36	1·32	10	19	10·04	1·40	15	20
December ...	14·38	1·89	2	18	9·27	1·26	15	24	16·95	1·46	19	27
Totals ...	63·65	1·90	7	163	74·48	1·60	14	201	66·37	1·71	27	154

THE ANNUAL

REPORT

OF THE

SCHOOL MEDICAL OFFICER

TO THE

RHONDDA EDUCATION AUTHORITY

FOR THE YEAR 1911.

RHONDDA URBAN DISTRICT COUNCIL.

Members of the Rhondda Education Committee

Councillor WILLIAM EVANS THOMAS, M.D. (Chairman).
Mrs. FLORENCE NICHOLAS (co-opted Member).
Councillor DAN DAVIES.
,, GRIFFITH EVANS.
,, DANIEL RICHARD JONES.
,, WILLIAM THOMAS JONES, J.P.
,, WILLIAM PHILLIP THOMAS.
,, ALFRED GLADSTONE TRIBE.
,, WILLIAM LEWIS.
,, WALTER WILLIAMS.
,, EDWARD JONES.
,, THOMAS THOMAS.
,, JAMES JAMES.
,, NOAH REES.
,, EVAN JOSHUA RODERICK.
,, RHYS SAMUEL GRIFFTHS, J.P.
,, MARK HARCOMBE.
,, DAVID WILLIAMS.
,, JOHN DAVID WILLIAMS, J.P.
,, LEWIS HOPKIN.
,, THOMAS EVANS.
,, LEMUEL PRICE GRIFFITHS.
,, THOMAS GRIFFITHS, J.P.
,, BENJAMIN DAVIES.
,, WILLIAM THOMAS DAVIES.
,, EDWARD THOMAS WOOD.
,, WILLIAM HENRY MATHIAS.
,, DAVID SMITH (8 months).
,, ROWLAND HUGHES, B.D. (3 months).
,, HENRY EDWARD MALTBY.
,, DANIEL EVANS.
,, ABEL JACOB.

Clerk to the Committee: W. P. NICHOLAS.
Director of Education T. W. BERRY.
Architect: JACOB REES.
School Medical Officer: J. D. JENKINS.
Medical Inspectors: J. LAMBIE.
J. W. MYLER.
Medical Inspection Clerk: CARADOG DAVID.

Rhondda Urban District Council.

To the Chairman and Members of the Education Committee.

Mrs. Nicholas and Gentlemen,

I beg to submit for your consideration my annual report as your School Medical Officer for the year 1911.

While no great change marked the administration of the medical inspection department in the course of the year, the routine work of the department served not only to add to the information in our possession concerning the physical condition of the children, the circumstances obtaining in our schools, and the extent of their influence, from the standpoint of health, upon the well-being of the children, but also to remedy or correct the defects from which many of the children were found to be suffering. The removal or correction of those defects in many instances enabled the children affected to profit more by the education afforded them by the Committee as well as to derive more knowledge and pleasure from their environment and to thus better befit themselves for their life's work.

As in previous years, I am glad to be able to acknowledge the assistance readily given to facilitate the work of medical inspection by your executive staff as well as by the teachers in the schools throughout your area.

Yours faithfully,

J. D. JENKINS,

The Council Offices,
Pentre,
August, 1911.

General Scope of Medical Inspection in Public Elementary Schools.

The powers granted to and the obligations imposed upon local Education Authorities in regard to the medical inspection of school children has remained practically unaltered throughout the year, and the requirements of Article 58 (b) of the Code of Regulations issued by the Board of Education, provide that

> "The Board must be satisfied that provision has been made for the medical inspection of all children admitted to school in the year, and of all children who are expected to leave school in the year....."

The general arrangement which was adopted in previous reports and which was based upon the recommendations of the Board of Education is adhered to in the present report.

General Character of the District.

The Urban District of Rhondda was ascertained to have contained on the night of April the 2nd, 1911, a total population of 152,781 persons, of whom 32,065 were children attending the elementary schools of the district. This proportion of school-going population is equivalent to 21 per cent., or more than one-fifth of the total number of persons of all classes and ages in the Rhondda. The prosperity and populous character of the district are almost entirely dependent upon the winning and working of the coal which is obtainable from within its area, and which is much valued on account of its high calorific properties and the relatively small amount of smoke to which its combustion gives rise. Practically all the members of the community are directly or indirectly dependent upon this industry. In conformation, the district in the main consists of two narrow winding valleys each of which begins in a *cul-de-sac* at its upper or north-western end before taking a south-

easterly direction to join the other at Porth to form one valley which, a little over a mile below the junction, is continued into the upper end of this portion of the Pontypridd Urban District. The hills skirting and separating the two valleys are both high and steep, and this physical feature exercises much influence upon the incidental no less than upon the essential activities of the district.

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6 (a).—General Review of the Hygienic Conditions Prevalent in the Schools.

Accommodation.—The rapid growth of the population of the district and the exceptionally high birth-rate which have been features of the Rhondda statistics for many years, make it very difficult for the Education Committee to keep pace with the demand for accommodation, and the result is that many of the schools are more or less overcrowded, especially in the infants departments.

In addition, the difficulty of obtaining suitable sites for new buildings at a reasonable price is becoming greater year by year, and unavoidable delay from this cause frequently leads to the prolonged use of temporary buildings and chapel vestries, in which teaching is carried on under disadvantages which have their effect on teacher and scholar alike.

The deficiency in the accommodation in certain areas leads to the formation of large and unwieldy classes, numbering frequently 50 or 60 scholars or even more in some instances.

School Buildings.—The density of the population on space is such in extent and distribution as to permit the erection of large schools to serve without inconvenience in point of distance practically the whole of the school-going population. The needs of the smaller out-lying but populated areas are met by the provision of Junior Schools accommodating

children up to Standard I., the older children attending the nearest school in the larger centres of population.

The most recently erected schools are situated on the sides of the hills which skirt the valleys in such a way that there is no interference with the free access of air or light to the class-rooms, but a few of the older schools are unsuitably placed at low situations adjoining the rivers, and are liable to sudden inundations from the rapid rising of the rivers in times of flood.

Two large schools have been completed during the year, one at Gelli (Bronllwyn School), and the other at Tylorstown. These will it is believed, for some time relieve the congestion in those areas. New classrooms have been added to Williamstown and Alaw Schools, to Porth Infants' and Girls' Departments, and a new Infants' School has been built at Ynyswen.

The Council have recently suffered a great loss by the destruction by fire of the school at Llwyncelyn. The children of this area are at present taught in vestries and in other halls conveniently situated in the neighbourhood.

The school buildings are generally speaking in a good state of repair, but a number have suffered great damage from the effect of subsidence of the ground on which they are built, the result of colliery workings underneath. The schools which have suffered most in this respect are those at Hafod and Ynyswen.

In structure, the schools are in nearly all instances substantially built of native stone with brick facings, and all but two or three are of one storey.

In very few of the schools is there a room suitable for medical inspection purposes. In the newer schools a head teacher's private room is available, but these are usually too

small, insufficiently lighted or in other respects unsuitable. In many cases the medical inspection has to be carried out under very trying circumstances, such as in an overcrowded schoolroom surrounded by classes all more or less noisy and with an additional degree of confusion which, under the circumstances the visit of the medical inspector is bound to entail.

Playgrounds.—The difficulty of obtaining suitable building sites in the district is further exemplified in the necessity to reduce the size of many of the playgrounds. When additions are made to a school, the Council is frequently driven to utilize part of the existing playground as a building site, in this way curtailing the available open space belonging to the original buildings. Thus not unusally the size of the playground appears to be in inverse proportion to the number of scholars. In one or two instances the playgrounds are relatively so small that the head teacher finds it advisable to send the scholars out in sections during the shorter play intervals.

Some of the playgrounds are paved and some partially paved. Many of the unpaved playgrounds are gravelled and are in consequence the cause of complaints, especially in infants' departments, partly because of the injuries caused when a child falls and partly because of the improper use to which the gravel is put by the children. During heavy rains also much of the loose gravel is carried to the gratings and drains which it helps to obstruct.

In a considerable number of schools no portion of the playground is covered to provide shelter in wet weather, but in most of the newer schools advantage is taken of the sloping nature of the sites to build the front portions of the schools on pillars and to thus provide covered shelters which must be very convenient for carrying out physical exercises in inclement weather.

Ventilation.—Ventilation is secured by means of ventilators placed in the windows, walls and ceilings.

The Medical Inspectors have found that on the whole, the teachers are careful to maintain as efficient a state of ventilation as possible, but that in some rooms where overcrowding exists, a " stuffiness " of the atmosphere can be detected in winter owing to the difficulty of admitting sufficient fresh air without producing injurious cross currents.

Lighting.—Gas or, in a few instances, electric light is used when natural light is insufficient.

The direction from which light is admitted in relation to the children taught is in many class-rooms of the older schools at fault, and in a considerable number of cases the defect does not seem capable of being satisfactorily remedied.

In the newer schools the direction in which light is admitted is invariably correct in relation to the scholar, but the Medical Inspectors draw attention to the fact that in some of these the side of the school which contains most of the class-rooms is placed next an overshadowing hill, and it is found that especially where there is a northerly or easterly exposure on that side light is very defective in winter. The other side of these schools mainly consists of a large assembly hall not intended to be used for teaching purposes.

The School Medical Officer in his capacity as Medical Officer of Health, examines all plans for new school buildings and has an opportunity of commenting upon them. In all plans submitted throughout the year the proposed arrangement of desks was found to be satisfactory in relation to the admission of light.

As in previous years it was found that the dirty condition

of the upper portions of many of the windows interfered with the lighting to a considerable degree.

It appears that the female cleaners find it impossible to reach the upper parts of the windows so that coal dust and soot are allowed to accumulate on and to obscure the glass. The outer surfaces of the windows of some of the schools never seem to be cleaned at all, so that their condition depends entirely upon the weather.

The appointment of whole time male caretakers for some of the schools has effected a decided improvement in respect of the cleanliness of windows.

Warming.—The great majority of the schools are warmed by stoves and open fires, and a few by hot water radiators. The hot water installations ought to give the best results, but the few schools fitted in this way are not found to be sufficiently warmed on the coldest days. This may be due to insufficient radiators, or to lack of attention or practical knowledge on the part of those in charge.

At one school it happened during a visit that the water supply was insufficient to work the system.

In some cases, notably at Tonypandy Mixed School, stoves of an old pattern which absorb most of the heat, are used, and the results obtained are very unsatisfactory.

Records of school temperatures are kept more or less conscientiously in all the schools.

Equipment.—The dual desk is the prevailing type of desk, although a considerable number of multiple desks are still to be found in the older schools.

The height of the desks is as a rule uniform in each class, but varies according to class or standard.

In a number of the Infants' Departments the younger children are provided with little tables and armchairs. There is still a lack of couches or cots and other nursery appliances for the babies' classes, and as a large number attend school at the age of three years the need for such conveniences is obvious.

General Sanitation—General Cleanliness.—The general cleanliness of the schools cannot be said to be wholly ideal or even satisfactory.

There is reason to believe that dry sweeping is still extensively practised by the cleaners, in consequence of which dust is distributed everywhere throughout a school. The rough internal surface of the walls, generally found in the newer schools harbours a great quantity of dust, and these walls very soon present an unsightly and grimy appearance.

As a result of the report on the cleansing of schools incorporated in my last annual report, an extended experimental trial has been given in one or two schools to the draft regulations and suggestions therein submitted, with results that have been reported as satisfactory in that increased cleanliness has been secured.

Sanitary Conveniences.—The trough type of closet is used in nearly all of the schools but in a few of the newer schools and in one or two where additions have recently been made, pedestal closets with separate flushing appliances have been introduced.

The flushing of the trough closets seems to have been done irregularly in many schools, and too infrequently in all. This may in part be due to the desire of the head teachers to keep the consumption of water as shown by the school meters within a certain limit which has come to be the recognised standard of consumption in the schools. The cleansing of the boys' urinals seems to be left in great

measure to the rainfall, so that their condition in warm dry weather is offensive. Generally speaking the arrangements for keeping the sanitary conveniences clean and wholesome do not seem to have improved during the year.

Lavatories.—The lavatories provided for the schools certainly seem sufficient for the use that is made of them. Many of the teachers certainly encourage or insist upon a fair standard of cleanliness for children's hands, but a much higher standard might easily be secured. More supervision of the lavatories by the teachers is required, as the roller towels supplied are not by any means free from objection from a medical point of view. Under present circumstances it is very undesirable that the school lavatories should be used for washing faces owing to the possibility of spreading ophthalmia or other contagious disease. The same objection of course applies in a lesser degree to the washing of hands, but the hand washing is essential in the schools owing to the filthy state many of the children, especially boys, allow their hands to get into during play hours.

Cloak-rooms.—In some of the schools where alterations have been carried out during the year improvements have been effected in the cloak rooms. Many cloak-rooms however are still unsatisfactory in point of size and ventilation. No arrangements for drying clothes or boots exist except in one or two schools fitted with hot water heating systems, where radiators are placed in such a position as to help in drying the clothes. In some infants' departments instead of the baskets used to collect caps mentioned in last year's report, moveable stands have been introduced. These are less objectionable as the caps are kept separate and the stands are wheeled out of the classroom into the hall or corridor until the dismissal of the children.

Water Supply.—In nearly all cases the school water supply is derived from the mains of the Council or of the

Pontypridd and Rhondda Joint Water Board. Blaenrhondda School formed, until February 1912, an exception, its supply having been derived from a local private water company, but during that month this school was connected with the Council's supply. The water which is in nearly every case supplied by meter seems as in previous years to have been sparingly used, as the head teachers seem to be under the impression that there is a low limit in the consumption above which they must not go, irrespective of the needs of the individual schools. It is to be hoped that in the future the head teachers may be encouraged to freely use the available supply for cleansing and ablutionary purposes as well as for satisfying the thirst of the children. Dr. Myler reports that the supply at Stanleytown Schools has been utterly inadequate for many months in the course of the year.

Relation of the General Arrangements of the School to the Health of the Children.

No comparative statistics are issued in this report to show differences in the standard of health in schools with the most satisfactory general arrangements as compared with those with the most unfavourable. The opinion might be expressed that if such differences could be shown to exist, the deductions drawn therefrom might prove fallacious, as the difference in health might be in reality due to other conditions operating independently of the schools. There can be little doubt however that the indifferent light in some of the school classrooms tends to aggravate defects of vision. Some schools again are low-lying and markedly affected during heavy rains, which may have an effect both on the present and on the future health of the children. Tylorstown School may be mentioned specially as having an unfavourable situation as it abuts on a colliery yard from which steam and coal dust pass into the class-rooms. The

form and extent of the evil results (if any) of the above-mentioned conditions cannot however be demonstrated at present with any certainty.

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6 (b) Co-relation with the Public Health Service.

The School Medical Service is directed, controlled, and supervised from the same department as the Public Health Service, so that there is no exceptional difficulty in producing the amount of fusion necessary to prevent duplication of work, with the minimum of staff. The actual work of medical inspection is performed in part by one whole-time medical inspector, and in part by the Assistant Medical Officer of Health, the major portion of the latter's time being devoted to other branches of the public health service.

The Schedule of Medical Inspection issued by the Board of Education has in effect been adhered to except in two respects.

(1) Chest measurements of boys are taken and recorded.

(2) A record of vaccination marks is made. No use whatever in connection with the Vaccination Acts is made of the records obtained and no comment is offered to the child or to the parent, if in attendance, whether marks are present or not.

The Assistance at present rendered to the Medical Inspectors is such as can be provided by the previously existing staff in the Education Department and by a Junior Clerk in the School Medical Officer's office.

The Director of Education and his staff have afforded the medical inspectors the necessary facilities for the performance of their duties, and the relations between the officers of the School Medical service and the other officers of the Education Department have been cordial from the initiation of medical inspection.

The teachers with the consent and encouragement of the Education Committee have given great assistance in sending leaflets to parents to notify them of the time of the medical inspector's visit, in obtaining information from parents, and in filling up forms. This work is often very considerable, especially in the Infants' Departments, and in some instances naturally the Medical Inspector's visit happens at a time when an excessive demand is being made upon the time of the teachers from other sources. Much credit is therefore due to the head teachers, collectively and individually, for the excellent way in which they have met such difficulties, and for the intelligent and sympathetic interest they have shown in the work of medical inspection. In the case of "leavers" and "specials," the histories given by the teachers have been of the greatest value to the Medical Inspectors.

The presence of parents is invited by means of circulars (M.I. 5) sent out immediately prior to the medical inspection.

The invitations were taken advantage of by only a very small proportion of parents, only 101 having attended at the examination of their children in the course of the year, the proportion of parents attending to the number of children examined thus being 1·6 per cent. A considerable number of the parents who attended, did so at the special request of the Medical Inspector, in order to give further information regarding their children, or to receive instructions or advice which could not otherwise be equally well conveyed.

The presence of the parents is often a great help to the inspector, as a more reliable history of the child's previous health can be given. On the other hand the younger children are more restive under medical examination when their parents are present than when the teachers alone are

in attendance; more time is also taken under the former conditions, as the majority of parents are inclined to be rather prolix and discursive in discussing their children's health.

Disturbance of School Arrangements involved by the inspection.

The medical examinations have been conducted in the school premises and the amount of disturbance of school arrangements has varied according to the adaptability of the several school premises for the work together with the state of each school as regards overcrowding. In many of the newer schools a teachers' private room is available and is readily given for the work. These rooms are as a rule too small to be quite suitable, but their use reduces the disturbance of school arrangements to a minimum. In the majority of the schools however there is no such accommodation and a class has to be turned ont of a class-room and placed in another room where possibly there already exists some degree of overcrowding. The medical inspectors have in such circumstances endeavoured to minimise the disturbance of arrangements as much as possible. It is necessary always to have one or more teachers in attendance when girls or infants are being examined, and the presence of a teacher is also highly desirable even during the examination of the older boys. The dressing and undressing of infants is always tedious and trying for the teachers, and it would certainly be advantageous in this direction if a larger number of mothers could be induced to attend the examinations as they would better understand the intricacies of the multitudinous garments with which many of them see fit to burden their children.

In some infants' schools where there happens to be a temporary shortage of staff it is found impossible to supply

more than one teacher for this work and the rate of progress of the examination becomes correspondingly slow. In cases where this happens it is sometimes possible to obtain the help of one or two of the older girls from an adjoining girls' department, this proceeding being justifiable on the ground that the girls benefit to some extent in gaining an experience of the management of young children. Some of the infants' departments are however isolated and when a shortage of staff and overcrowding co-exist a state of great confusion is almost of necessity produced by the visit of the medical inspector.

In connection with the filling up of forms and sending out of circulars the work sometimes necessitates the withdrawal of a teacher from ordinary duties for a short period.

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6 (c) General Statement of the extent and scope of the Medical Inspection carried out during the year.

During the year 426 visits to schools and departments were paid by the medical inspectors (Drs. Lambie and Myler), both the morning and afternoon sessions being enumerated.

Of these visits 26 were occupied in carrying out a special investigation concerning the children previously found to be defective, to ascertain to what extent the notices containing advice sent to parents had been complied with. This inquiry is dealt with further on under the heading "Following Up."

In addition to the visits enumerated above, visits were paid at irregular times to a number of schools by the School Medical Officer or other member of the school medical staff for such purposes as the inspection of school buildings, special medical examinations, or matters relating to the administrative work of the service.

Principle of selection of Children examined.—As in previous years the children examined have been drawn from three groups :—

(1) All recently-admitted children, that is, all children admitted to each school since the date of the previous medical inspection. This group is known as "the entrants." It was found necessary towards the end of the year, owing to the numbers missed through absence, to specially draw the teachers' attention to those missed at the previous examination in order that they might be included in the current examination.

(2) All children expected to leave school before the 31st of July, 1912.

It was found during the first part of the year that a large number of children who should have been examined had left school, owing to a change in the regulations under which exemptions from school were obtained.

For the second half of the year, therefore, the teachers were instructed to bring forward for examination "all children who were expected to leave school during the twelve months following the current medical inspection." In this way there can be no possibility of missing children in the manner mentioned as the medical inspection of each school occurs oftener than once a year. Those missed by absence in this group are at the time of writing being examined, the schools being revisited for this purpose.

(3) In addition to the "entrants and leavers" which are the groups required to be examined under the Code, the Committee thought it advisable that another group—"the specials"—should be examined. This group includes all children of whatever age, who in the opinion of the teachers requre medical attention. This course was adopted because it was felt that the amount of benefit to the community as a

whole possibly derivable from such a course would be out of proportion to the expenditure of time involved as this special group would be likely to contain a much larger percentage of defective children than the "entrant" or "leaver" groups.

In the case of the "specials," the full details of the ordinary schedule of inspection are not entered up by the medical inspectors who confine themselves to a careful examination for the defect suspected to exist, the results being recorded on cards of a distinctive colour.

This group was appreciably smaller in 1911 than in previous years, and in the course of time when medical inspection comes to include an intermediate group it will become almost negligible.

The total number of children examined in the three groups amounted to 6,366, classified for age and sex in the following table :—

Table 1.

Age in Years.	Sex.	No. of Boys and Girls examined.	Totals.
3 to 4	Boys ...	452	927
	Girls ...	475	
4 to 5	Boys ...	751	1,474
	Girls ...	723	
5 to 6	Boys ...	479	944
	Girls ...	465	
6 to 7	Boys ...	230	455
	Girls ...	225	
7 to 8	Boys ...	108	223
	Girls ...	115	
8 to 9	Boys ...	54	140
	Girls ...	86	
9 to 10	Boys ...	41	91
	Girls ...	50	
10 to 11	Boys ...	69	165
	Girls ...	96	
11 to 12	Boys ...	139	371
	Girls ...	232	

Table 1.—continued.

12 to 13	Boys	...	561	984
	Girls	...	423	
13 to 14	Boys	...	310	574
	Girls	...	264	
14 to 15	Boys	...	9	18
	Girls	...	9	
15 to 16	Boys	...	—	—
	Girls	...	—	—
Totals		Boys	3,203	6,366
	...	Girls	3,163	

Of the total number examined 642 belonged to the "special" group, and of these 296 were boys and 346 girls.

Number of children referred for subsequent examination.—Very few re-examinations were made for diagnostic purposes but a considerable number were re-examined in the course of a "following-up" inquiry of which details will be found in a later part of the report.

The number of children in respect of whom directions were given for treatment of defects amounted to 569 as compared with 664 in 1910 and 1,034 in 1909.

The falling off in the number of notices sent may be attributed to the smaller number of children in the "special" group, and to the general improvement brought about by the previous years of medical inspection as shown by the comparative rarity of bad cases of uncleanliness.

The average time per head occupied by inspection amounted to 9·3 minutes. The average number of children examined per day by each Inspector amounted to 32 in the course of the year under review.

6 (d) General Review of the facts disclosed by Medical Inspection.

The number of defects and diseases found by the Medical Inspectors in the children examined together with the percentage proportion of the number suffering from each disease or defect, is given in the following table.

The total number of children examined amounted to 6,366 of whom 642 belonged to the "special" group.

Table 2.

Disease.	Number of Children suffering from each disease.	Percentage proportion of the number so suffering to the number examined.
Skin : contagious (excluding Ringworm) ...	65	1·02
Skin : Non-contagious	102	1·60
Ringworm of the scalp...	51	·80
Ringworm of the body...	—	—
Heart disease	76	1·19
Lung disease, general	46	·72
Lung disease, tubercular	2	·03
Affections of nervous system	24	·37
Mentally deficient	44	·69
Enlarged tonsils	368	5·78
Adenoids	51	·80
Carious teeth (4 or more)	1,359	21·34
Deformities	93	1·46
Hernia	15	·23
Rickets	9	·14
Defective vision	342	5·37
External eye disease	109	1·71
Squint	95	1·49
Ear disease	55	·86
Deafness	122	1·92
Defective speech	29	·45
Infectious diseases	12	·19
Enlarged glands	46	·72
Enlarged thyroid gland	1	·01
Tubercular bone disease	2	·03
General neglect	22	·34
Nasal polypus	2	·03
Verminous condition	660	10·37

The most striking and obvious feature in the above table relates to the relatively small percentage recorded of children suffering from any form of tuberculous disease. Only two children were definitely pronounced by the medical inspectors to be suffering from pulmonary tuberculosis. It is admitted however that it is not improbable that some, if not a considerable number, of those showing evidence of other forms of lung disease may on further examination under more favourable conditions require transference to the tuberculous group. It is hoped that in the immediate future these cases of a doubtful character will become fewer in number, for the establishment of a school clinic, an investigation of the home conditions of the children including the examination of contacts, and the availability of the diagnostic skill of a medical man possessed of special experience and knowledge of this form of disease will together make possible a more definite classification of cases now necessarily pronounced as doubtful. Cases requiring reference for further examination will of course continue to arise but these will belong more and more to an earlier and therefore more curable stage of the disease in proportion to the improvement in the facilities afforded and to the additional knowledge of the disease which further experience will enable us to acquire.

NUTRITION.

The classification into excellent, normal, sub-normal, and bad is adopted in the following table:—

Table 3.

	Boys.		Girls.		Infant Boys.		Infant Girls.		Total.	
	Number of Records.	Per Cent.	Number of Records.	Per Cent.	Number of Records.	Per Cent.	Number of Records.	Per Cent.	Number of Records.	Per Cent.
Excellent	74	7·6	38	4·2	90	4·7	99	5·3	301	5·3
Normal	879	89·9	860	94·0	1,785	93·0	1,759	92·4	5,283	92·4
Sub-normal	23	2·4	16	1·8	43	2·2	45	2·2	127	2·2
Bad ...	1	·1	—	—	2	·1	1	·1	4	·1

It is impossible to give a rigidly correct statement of the condition of nutrition of the children examined, such as would be useful for comparative statistics. The record of of the state of nutrition in each case represents merely the opinion of the medical inspector, as the result of an examination as to the amount of subcutaneous fat present, the muscular development, the condition of the mucous membranes as indicating an anæmic or healthy condition, and the general appearance of well-being in the child. It is obvious that the opinions of different inspectors regarding the classification of the better nourished children must vary considerably, as there is no well defined condition of nutrition which can be recognised as the dividing line between good and normal nutrition. The majority of medical inspectors would agree however as to the classification of the children whose nutrition is subnormal, so that a fair indication of the general state of nutrition of Rhondda elementary school children is obtained from the above figures.

The standard of nutrition continues to be good and no falling off was observed as a result of the strike in the

Mid-Rhondda area which continued throughout the greater part of the year. A sufficiency of food was provided for the children affected from private as well as from public sources, the local education authority having contributed to the extent permitted by the Education (Provision of Meals) Act, 1906.

A number of children whose state of nutrition was below normal were stated to have recently suffered from an acute illness so that the condition was probably transitory.

CLOTHING.

The classification into good, average, and bad, which is usually recommended, is adopted in the following table.

Table 4.

	Boys.		Girls.		Infant Boys.		Infant Girls.		Total.	
	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.
Good ...	431	44·2	523	57·2	991	51·6	959	50·4	2,904	50·8
Average	443	45·3	351	38·4	750	39·1	793	41·6	2,337	40·9
Bad ...	103	10·5	40	4·4	179	9·3	152	8·0	474	8·3

FOOTGEAR.

It has been considered advisable to dissociate footgear from clothing, because previous experience has served to show a want of uniformity in their condition in particular individuals.

Table 5.

	Boys.		Girls.		Infant Boys.		Infant Girls.		Total.	
	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.
Good ...	454	46·5	530	58·0	1,011	52·7	958	50·3	2,953	51·7
Average	440	45·0	349	38·2	747	38·9	792	41·6	2,328	40·7
Bad ...	83	8·5	35	3·8	162	8·4	154	8·1	434	7·6

It is satisfactory to note that the condition of the Rhondda school children continues to improve in respect of the state of their clothing and footgear as evidenced in the continued reduction of the proportion classed as bad. This proportion varies considerably in different schools, being markedly high in schools situated in certain localities where an abnormally large number of the inhabitants appear to be thriftless. Nowhere however in the Rhondda do such deplorable conditions in respect of clothing exist as are described in reports by school medical officers in various districts of England and Scotland.

Attention may however be drawn to a common error of judgement which a great many mothers in this district commit in burdening their younger children with an excessive amount of clothes. The manner of clothing the older children is more or less stereotyped but there seems to be no limit to the variations in the modes of dressing infants, some of whom are found to be wrapped up in layer after layer of thick woollen garments. Children thus clad are habituated to conditions which do not allow full play to the natural powers possessed by them to withstand, and react to, unusual or unfavourable circumstances to which they may at any time be exposed. The common result of

such treatment is an undue susceptibility to unfavourable influences and the development of "colds" and catarrhal affections which not infrequently prepare the soil for the implantation of tuberculous and other serious diseases. A little thought and the exercise of common sense ought to enable the mothers to dress their children in clothes sufficiently warm without being cumbersome and harmful.

CLEANLINESS.

The classification into clean, somewhat dirty, and dirty is adopted in the following table:—

Table 6.

	Boys.		Girls.		Infant Boys.		Infant Girls.		Totals.	
	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.
Clean ...	869	88·9	811	88·7	1,759	91·6	1,621	85·1	5,060	88·5
Somewhat Dirty ...	84	8·6	96	10·5	139	7·2	246	12·9	565	9·9
Dirty ...	24	2·5	7	·8	22	1·2	37	2·0	90	1·6

The records as regards cleanliness continue to be very satisfactory. A considerable reduction is to be observed in the proportion of children returned as dirty. Thus 1·6 per cent. come under this heading in 1911 as compared with 5·5 per cent. in 1910 and 9·83 per cent. in 1909.

How much of this improvement is due to the more thorough preparation of the children for the medical inspection by bathing, as the result of previous experience of the medical inspector's visit it is difficult to say. It is one of

the drawbacks to informing parents of the time of inspection that parents who habitually neglect their children's cleanliness are enabled to prepare for the inspection in this way.

No school nurses or health visitors having been available during the year to " follow up " cases of uncleanliness, such cases were dealt with by the sending of a printed card (M.I. 12d.) to the parents or by means of a friendly word of advice from the medical inspector to the parent if present at the examination.

A daily bath is an essential item in the daily routine of the collier who is thus of necessity the most cleanly of all workmen. Unfortunately few workmen's dwellings in the Rhondda are fitted with baths having hot and cold water fittings and consequently the labour entailed in the preparation of the collier's daily bath may have an undesirable effect on the frequency of the baths taken by his dependants. Under the circumstances the installation of shower or spray baths at the schools may advantageously be considered by the Council. The provision of school baths besides being an education in personal hygiene, would probably lead in the future to a more general demand for properly appointed baths in the colliers' houses, since men and women who as children became habituated to regular and thorough bathing in school would be much more likely to require the same advantages in their own homes.

CLEANLINESS OF THE HEAD.

The classification into clean, somewhat dirty, dirty and verminous is adopted in the following table :—

Table 7.

	Boys.		Girls.		Infant Boys.		Infant Girls.		Totals.	
	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.
Clean ...	917	93·9	554	60·6	1,764	91·9	1,393	73·2	4,628	81·0
Somewhat Dirty...	45	4·6	54	5·9	127	6·6	183	9·6	409	7·2
Dirty ...	6	·6	2	·2	13	·7	17	·9	38	·6
Verminous	9	·9	304	33·3	16	·8	311	16·3	640	11·2

It will be seen from the above figures that as in previous years there is a very great difference in the proportion of verminous heads in boys and girls respectively. With few exceptions the boys are found to have their hair cut short so that there is little danger of their heads harbouring vermin. The girls on the other hand can only with difficulty be induced to wear their hair in plaits, where the attempt is made to persuade them to do so by the teachers. The plaiting of the hair renders the passage of vermin from one head to another much more difficult. The verminous condition of so many girls' heads must in great measure be attributed to the carelessness or supineness of mothers who when taxed, readily advance the view that children "must breed them."

The first step in the production of a better state of cleanliness is to convince mothers that vermin do not arise *de novo* in children's heads, and that with regular and unremitting care a child's head which has become infested with vermin can be easily rendered clean in a very short time, regularity and constancy in attention to the children's heads being all that is required.

During the year under review parents' attention was drawn to the verminous condition of their children's heads by means of cards (M.I. 12.) which also contain appropriate instructions for cleansing. Without doubt this matter will be better brought home to parents in the future through the agency of the recently appointed health visitors.

The records for the year however compare favourably with those of previous years, the greatest reduction in the proportion of verminous heads being found in the case of the infant girls among whom the proportion of verminous heads was 16·3 per cent. in 1911 as compared with 27·7 per cent. in 1910.

It is a noteworthy fact that a considerable proportion of the girl candidates for pupil-teacherships who are medically examined annually by the School Medical Officer and his medical staff, are observed to show evidence of a past or possibly present verminous condition, from the large numbers of "nits" in their hair.

RINGWORM.

In the course of the year 51 cases of ringworm of the scalp were met with but not one case of ringworm of the body. The 51 cases of ringworm of the head are equivalent to a proportion of ·80 per cent of the children examined, as compared with ·63 per cent in 1910.

The teachers now seem to be more vigilant regarding this affection and as soon as a case is observed a communication is sent to the parents requesting that the child should visit a medical man.

Ringworm of the head is one of the affections for which exclusion from school is necessary and owing to its chronic nature and the difficulty of cure by the ordinary means it causes a most serious curtailment of the educational

opportunities of the children. The most rapid and efficient form of cure is by means of x-rays which however are not available for the children of this district.

CONDITION OF TEETH.

The following table shows the numbers and proportions of children in the various departments who were found to have sound teeth, one to three carious teeth, and four or more carious teeth.

Table 8.

	Boys.		Girls.		Infant Boys.		Infant Girls.		Totals.	
	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.
No carious teeth...	116	11·9	98	10·7	592	30·8	572	30·0	1,378	24·1
1–3 carious	687	70·3	627	68·6	797	41·5	826	43·4	2,937	51·4
4 or more carious...	174	17·8	189	20·7	531	27·7	506	26·6	1,400	24·5

While it can be said that there seems to be a certain degree of improvement in respect of the condition of the children's teeth, in as much as 24·1 per cent were found to have sound teeth in 1911 as compared with 18·2 per cent. in 1910, still there is an almost entire absence of effort in the direction of conservation of the teeth. There is evidence that in but few cases is any attempt made to secure oral cleanliness by the use of a tooth-brush or otherwise. The absence of oral cleanliness however fails to account for the excessive amount of decay found in the teeth of children of three years of age, and there is little doubt that the

unsuitable nature of the food given to the children is to a large extent responsible. It should be remembered that when nature provides the temporary molars she intends them to be used, and children who have cut their molars or "grinders" ought to be given food requiring a certain amount of mastication. Decay in the temporary set tends to lead to rapid decay in the permanent teeth and it is not uncommon to see children's mouths containing some permanent and some temporary teeth with practically every tooth carious. Many teeth are seen by the inspectors in which caries is commencing and which could be preserved for many years by proper dental treatment.

Unfortunately there is no qualified dental surgeon resident within the district, but unqualified practitioners abound whose practice consists almost entirely in the extraction of teeth and the fitting of artificial ones. It is worthy of note that several education authorities have appointed whole-time qualified dental surgeons to attend to the teeth of the children, and that others have entered into arrangements with qualified dental practitioners whereby payment is made for each child treated according to a scale. The provision of a whole-time dentist is the better arrangement and is a question which is worthy of the serious consideration of the Education Committee by the time a School Clinic is established. There can be no doubt that the money spent would be more than repaid, not only by increased power shown by the children to assimilate knowledge and by inincreased grants from better attendance, but also by the better standard of health which would ultimately result throughout the community.

Apart from the unsightly appearance, the pain, and the evil results produced directly by the absorption of poisonous products carious teeth have a profound effect on the general health by preventing the proper mastication of food and

thus producing digestive troubles more or less serious in character.

In the meantime education of the children in the principles of oral cleanliness is likely to bear fruit in the course of time, but one would like to see this matter more enthusiastically taken up by the teachers. In some schools in the country "tooth-brush drill" is performed as regularly as physical exercises and probably with no less benefit to the health of the children.

ENLARGED TONSILS AND ADENOIDS.

A large number of children—5·78 per cent. of those examined,—were found to be suffering from enlarged tonsils, and ·80 per cent. were recorded as having adenoid growths at the back of the nasal passages, as indicated by facial characteristics and obstruction to nasal breathing, a digital examination for their detection having only been made in a few cases, in the presence of parents. There is little doubt that a more exhaustive examination such as could be carried out if doubtful cases were re-examined at a school clinic, would reveal many more cases of this defect. The parents of children who in the opinion of the medical inspectors required operation for these defects were advised by means of a letter (M.I. 7.) to consult their medical attendants. In many cases deafness in some degree was associated with enlarged tonsils and adenoids.

EYE DISEASE AND VISION.

External Disease of the Eyes.—In this group are included the various forms of inflammation of the eyelids, conjunctivæ and corneæ. A total number of 109 or 1·71 per cent. of the children examined were found to be affected in this way. Chronic blepharitis is most commonly met

with, and is one of the most intractable forms of inflammation of the eyelids and requires constant care and treatment. It is generally found however that such cases receive no treatment of any kind or only of a casual and intermittent kind, so that loss of eyelashes and distortion of the lids are frequently seen as a result.

There seems to be a surprising apathy shown by parents in respect of inflammation of the conjunctivæ and ulcers of the eyes of their children and the results of neglect in such cases are frequently disastrous. There are a considerable number of children now attending the elementary schools whose vision owing to the lack of prompt and energetic treatment, has been permanently impaired, in some cases seriously, by the opaque scars resulting from corneal ulcers.

Squint.—A total number of 55 or ·86 per cent. of the children were found to suffer from squint in greater or less degree. In many cases this defect goes entirely untreated and in the majority of the remainder treatment consists in the provision of glasses by an unqualified practitioner. The provision of suitable glasses in early cases may remedy the defect, but important supplementary treatment is also required and it is necessary that the patient should be under the care of a competent ophthalmic surgeon, otherwise the correction of the vision by glasses is almost sure to fail to correct the squint.

It is not generally known by the public that operative measures can correct a squint, but in one or two cases, among the older children in our schools in which instances parents have followed the instructions of the medical inspectors and their own medical attendants faithfully, excellent results have been obtained by operation, the children's appearance having been greatly improved.

Vision.—In 342 cases or 5·37 per cent. vision was found to be defective. The number of defects of vision found is smaller than in previous years, but there is no reason to believe that such defects are decreasing. The reduction in the number found is due to the fact that so many children with defective sight have previously been examined under the "special" groups of the preceding years. It is in this connection that the "special" group in the present scheme of examination has its greatest utility. It is impossible to test the vision of the great majority of entrants and eye defects frequently become manifest after a few years of school life. All children of whatever age apparently suffering from defects of vision and not falling within the limits of the other groups are presented by the teachers to the medical inspectors as "specials." It may be mentioned here that the testing of the eyes is done by the medical inspector by means of Snellen's Types and that paralysis of accommodation is not previously induced, so that the test is merely a rough one. A limited number of trial lenses however is at the disposal of the medical inspector so that he may have an idea of the extent and character of defects.

Although it may be said that parents are beginning to realize the importance of the treatment of eye defects still a great number allow defects reported by the medical inspectors to go untreated. As there is no medical man specialising in ophthalmic work resident in the district, parents who desire to give their children's eyes the best possible attention in this direction must expend a considerable amount of time and money in journeys to Cardiff, Swansea, or elsewhere.

In some cases the children themselves object to wearing spectacles and in one case where spectacles had been obtained, the objection could only be overcome by the schoolmaster who undertook to keep the glasses in school and to

compel the boy to wear them while in attendance, the parents evidently not having the necessary amount of control.

EAR DISEASE AND HEARING.

Obvious ear disease occurred in 55 or ·86 per cent. of the children examined and appreciable deafness in 122 or 1·92 per cent. The most common form of ear disease is a chronic purulent discharge from the ear resulting from middle ear disease, which is again a common sequel of several of the infectious diseases, particularly scarlet fever.

Chronic middle ear disease is commonly neglected almost entirely by parents who are doubtless not aware of the grave possibilities with which it is pregnant. It may lead to necrosis of the small bones of the ear with resulting impairment of hearing, to inflammation and necrosis of the bones of the skull, and not uncommonly to inflammation of the brain membranes or substance.

The treatment of this condition is in the main palliative but few parents have the requisite knowledge or skill to satisfactorily carry it out, and as a matter of fact it is generally ignored.

TUBERCULOSIS.

The records of medical inspection of the year 1911 reveal the fact that only 2 children, both in the routine groups, out of the 6,366 examined were returned as probably suffering from pulmonary tuberculosis. From this result as well as from the results previously obtained we must regard tuberculosis of the lungs as a comparatively rare disease among the school children of the district. Widely different results in this respect have been obtained by different medical inspectors in different parts of the country,

the proportion of cases found to the number examined varying from about the proportion found in the Rhondda to 4·1 per cent in one county area. The diagnosis of early cases is admittedly difficult especially under such conditions as usually obtain at examinations conducted in school but this factor is not sufficient to account for the enormous disparity of figures in different districts (cf. 6 (d) p 178).

Only two children one in the special and one in the ordinary groups, were found to be suffering from tubercular bone disease, and tuberculosis of the glands appears to be a remarkably rare disease in this district.

HEIGHT, WEIGHT AND CHEST MEASUREMENTS.

Records of the height and weight of all the children in the groups of entrants and leavers were taken. Chest measurements,—at the full expansion of the chest,—were taken in the case of boys only.

In the following table the average heights and weights of the children in the Rhondda elementary schools are compared with those given in the report for 1883 of the Anthropometric Committee of the British Association for the Advancement of Science as being the average at that time for the country generally.

It is hoped that as a result of co-operative work on the part of School Medical Officers throughout the country a more accurate standard will in future be available.

The most notable feature of the table is the fact that at every age the average height and weight of boys and girls is below the average for the country generally. This is in accordance with results found in previous years.

Table 9.

Table giving height, weight, and chest measurement in English and Metric systems of children inspected as compared with the averages for Great Britain in 1883.

Ages in Years.	Sex.	Number of Children Inspected.		Heights. English in inches Metric in Centimetres.) Average.		Weights (English in lbs. Metric in Kilograms). Average		Chest Measurements. (Inches and Centimetres Average.
				Rhondda.	Great Britain.	Rhondda.	Great Britain.	Rhondda.
3 to 4	Boys	446	English	36·2		31·9		20·4
			Metric	91·9		14·5		51·7
	Girls	472	English	35·9		31·0		
			Metric	91·2		14·1		
4 to 5	Boys	724	English	38·1		34·5		20·8
			Metric	97·0		15·7		52·8
	Girls	706	English	37·7		33·7		
			Metric	95·8		15·3		
5 to 6	Boys	470	English	39.8	41·03	37·2	39·9	21·2
			Metric	101·2	104·25	16·9	18·1	53·8
	Girls	454	English	39·5	40·55	36·1	39·2	
			Metric	100·3	103	16·4	17·8	
6 to 7	Boys	220	English	41·8	44·00	40·5	44·4	21·8
			Metric	106·2	111·75	18·4	20·2	55·3
	Girls	216	English	41·5	42·88	39·4	41·7	
			Metric	105·3	109	17·9	18·9	
7 to 8	Boys	70	English	42·6	45·97	43·6	49·7	22·1
			Metric	109·1	116·76	19·8	22·56	56·2
	Girls	71	English	43·2	44·45	43·1	47·5	
			Metric	109·9	112·90	19·6	21·56	
8 to 9	Boys	15	English	46·4	47·05	49·5	54·9	22·9
			Metric	117·9	119·5	22·5	24·92	58·2
	Girls	12	English	44·8	46·6	44·9	52·1	
			Metric	113·7	118·36	20·4	23·65	
9 to 10	Boys	7	English	44·1	49·7	54·8	60·4	24·3
			Metric	112·0	126·24	24·9	27·42	61·7
	Girls	6	English	48·4	48·73	53·0	55·5	
			Metric	123·0	123·77	24·1	25·2	
10 to 11	Boys	28	English	50·7	51·84	60·5	67·5	25·1
			Metric	128·9	131·67	27·5	30·64	63·7
	Girls	52	English	51·1	51·05	61·8	62·0	
			Metric	129·9	129·67	28·1	28·15	
11 to 12	Boys	116	English	51·9	53·5	65·1	72·0	25·3
			Metric	131·8	136	29·6	32·75	64·2
	Girls	207	English	52·8	53·1	66·7	68·1	
			Metric	134·1	135	30·3	30·9	
12 to 13	Boys	556	English	54·0	54·99	66·9	76·7	26·1
			Metric	137·1	139·75	30·4	34·8	66·3
	Girls	422	English	54·3	55·66	71·5	76·4	
			Metric	137·8	141·25	32·5	34·6	
13 to 14	Boys	308	English	54·8	56·91	75·2	82·6	26·5
			Metric	139·2	144·75	34·2	37·5	67·3
	Girls	264	English	55·3	57·77	76·1	87·2	
			Metric	140·5	146·5	34·6	39·5	
14 to 15	Boys	9	English	55·2		78·1		27·2
			Metric	140·2		35·5		69·2
	Girls	9	English	57·2		83·2		
			Metric	145·2		37·8		

Another interesting fact is that the average height of girls exceeds that of boys at ages 7, 9, 10, 11, 12, 13 and 14, and the average weight of girls exceeds that of boys at ages 10, 11, 12, 13 and 14.

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6 (e) General review of the relation of home circumstances and social and industrial conditions to the health and physical condition of the children inspected.

There is exceptional uniformity throughout the district as regards the character of the population whence the children attending the elementary schools are drawn, the vast majority being dependent directly upon the coal-mining industry. The home life, the social conditions, and the housing accommodation are strikingly similar throughout the whole area. There is a natural tendency however for the more thriftless units of the population to congregate together in the older houses and poorer streets of the district and although such streets are comparatively few and scattered throughout the urban area, they are sufficiently numerous in one or two neighbourhoods to give to the schools in those areas a distinctive character. The difference in these cases is more in the direction of neglect of clothing and cleanliness than in defective health or nutrition.

It might have been expected that as a result of the strike in the Mid-Rhondda area, which lasted throughout the greater part of the year, that the health and nutrition of the children attending schools in that area would be impaired, but this was not found to be so, owing doubtless to the help which was forthcoming from private and public sources.

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6 (f) Review of the methods employed or available for the treatment of defects.

There has been no change in this direction during the year, the medical practitioners of the district, the Cardiff Infirmary and the Swansea Hospital forming the chief means of treatment available.

The system of medical contract practice in vogue in the district, places the services of one or more medical practitioners at the disposal of the vast majority of the children attending the elementary schools so that when adequate treatment can be obtained by such means, no valid excuse can be advanced for disregarding the information concerning their children's defects which is supplied to the parents after each inspection.

In a considerable number of cases which require special treatment, such as the conservative treatment of teeth and the correction or cure of certain eye disease or defects it is not possible to obtain skilled treatment in the district so that journeys to Cardiff or Swansea have to be undertaken. This fact is frequently made the excuse for delay in securing proper treatment, the cost of travelling for parent and child being a factor which cannot be ignored.

School Clinic.—No treatment of any kind was carried out during the year by the officers of the Medical Inspection Department, and no treatment was provided by the Education Authority. The establishment of a school clinic was however the subject of much deliberation by the committee concerned, and finally the principle was definitely agreed to.

It was accepted that the most suitable site for buildings in connection with the school clinic would be on land belonging to the Council adjacent to the Isolation Hospital, but as there seemed at the time to be a likelihood of the same building being made to serve two purposes,—a school

clinic and tuberculosis dispensary,—with satisfactory results both as regards convenience and economy, further consideration of the matter was deferred till such time as definite information could be obtained as to the effect of the Insurance Act upn the scheme.

At the time of writing it seems probable, if regrettable, that the treatment of persons suffering from tuberculosis rendered necessary by the " sanatorium benefit " provisions of the Act will be provided in Wales by the Welsh National Memorial Association upon which it will be incumbent to furnish its own means of carrying out the obligations which it has so strenuously striven to secure. It will therefore be necessary for the Education Committee to reconsider the means of best establishing a school clinic for the district.

The method of "following up." As no school nurses or health visitors were available during the year for the important work of "following up" the notices sent to parents of defective children, this work cannot be said to have been efficiently performed.

The work was to some extent done by the Medical Inspectors who in the course of the year re-examined a certain number of children previously found to be defective at the schools, to ascertain to what extent the recommendations contained in the notices sent to their parents had been carried out. The defects of this method are that the younger children are unable to give definite information, that the medical inspector usually finds no opportunity of personally advising or persuading the parent to give his or her child's defect the necessary attention, and that there is no chance of observing home conditions. As a matter of fact the inspector is usually dependent on imperfect information supplied by the teachers. The results of such re-examinations are given in the following table :—

School.	No. of Notices sent to Parents.	Medical Advice Sought.						No Medical advice sought.	No satisfactory information but disease in statu quo.	Absent or left school.
		Treated.			Not treated owing to:					
		Cured or Corrected	Improved	Not Improved	Poverty.	Negligence.	Postponement.			
Blaenrhondda	15	2	1	2	—	1	—	5	—	4
Blaenycwm ...	1	—	—	—	—	—	—	—	—	1
Dunraven ...	17	2	1	—	—	—	—	8	4	2
Treherbert ...	15	2	—	—	—	—	—	4	5	4
Park ...	12	4	1	1	—	—	—	4	—	2
Treorchy ...	4	—	1	—	—	—	—	1	—	2
Pentre ...	7	1	2	—	—	—	—	2	—	2
Ton ...	12	2	2	1	—	—	—	3	1	3
Gelli ...	12	2	2	2	—	—	—	6	—	—
Bodringallt ...	5	2	—	—	—	—	—	—	1	2
Pontrhondda ...	17	1	4	2	—	—	—	7	—	3
Llwynypia ...	16	6	1	—	—	3	—	—	—	6
Blaenclydach ...	13	—	4	5	—	1	—	2	—	1
Cwmclydach ...	10	—	—	2	—	—	—	5	—	3
Tonypandy ...	7	—	2	—	1	—	—	2	—	2
Tonypandy R.C.	2	—	—	—	—	2	—	—	—	—
Penygraig ...	15	2	2	2	—	1	—	2	—	6
Dinas ...	7	—	1	—	1	3	—	1	—	1
Williamstown...	18	5	3	—	1	2	3	1	—	3
Graigddu ...	6	—	2	—	—	—	2	—	—	2
Cymmer ...	19	3	3	2	—	—	3	7	—	1
Ynyshir ...	27	3	6	—	—	—	2	11	—	5
Aberllechau ...	12	1	4	—	—	—	—	6	—	1
Pontygwaith ...	13	1	2	1	—	—	—	7	—	2
Tylorstown ...	16	—	4	1	—	—	1	8	—	2
Stanleytown ...	2	—	—	—	—	—	—	1	—	1
Dyffryn ...	8	—	—	—	—	—	—	8	—	—
Ferndale ...	4	1	—	—	—	—	—	1	—	2
Maerdy ...	18	5	6	—	—	1	—	4	—	2
	330	45	54	21	3	14	11	106	11	65

It will be observed that although only a few months had elapsed since the previous visit of the inspectors to the schools a large number of children had left school, while others were absent during the re-visit so that the importance of home visitation is well adduced.

The question of adequate following up was however given close consideration by the committee during the year.

The possibility of the work being done by attendance officers was considered and a test was arranged by which one of the attendance officers visited the homes of all children found defective in his district and reported on special forms (M.I. 20.) to the School Medical Officer.

The lack of training, want of knowledge of medical terms, other duties, and the fact that the attendance officer is not generally a welcome visitor at the children's homes together led the Committee to decide that the attendance officers are not the best adapted for this work. It was finally decided to appoint 4 health visitors so as to increase the number already engaged in the district to six whose duty it will in part be the "following up" of defective children. These additional health visitors were appointed early in 1912.

Method of Exclusion from School.—In the course of the year a scheme was submitted and approved dealing with the exclusion and re-admission of children who are found by the medical inspectors to be suffering from diseases which render their attendance at school dangerous or inadvisable and of those notified to the Medical Officer of Health as being sufferers from or occasionally in contact with infectious disease.

The scheme as it stood however imposed upon the attendance officers certain new duties to which objections were raised. A draft of new regulations affecting the attendance officers thereupon became the subject of prolonged discussion by the School Management Committee so that the operation of the full scheme for exclusion and re-admission was unavoidably delayed. It is expected however that the appointment of additional school nurses will serve to remove the objections.

6 (g) Infectious Disease in the Schools.

Cases of mumps, chicken-pox, measles and whooping cough have been from time to time discovered by the medical inspectors in the schools.

At the beginning of the year an epidemic of measles accompanied by heavy mortality occurred at Cwmparc and Treorchy and it was deemed advisable to close the Infants' Departments of the local schools under article 57 of the Code of Regulations for Public Elementary Schools in Wales. The Parc Infants' Department was closed from the 25th of January to the 17th of March and the Treorchy Infants' Department from the 1st of March to the 24th of March.

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6 (h) Defective Children.

No definite action has as yet been taken in the direction of providing, by special means, suitable instruction for children who on account of defects, mental or physical, are unable to take advantage of the ordinary course of instruction.

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6 i (1). The Methods and Results of Instruction in Personal Hygiene and Temperance.

A special lecturer is engaged to deliver suitable lectures on temperance twice annually in each department, and there has been supplied a Temperance and Hygiene Reader from which the teachers give lessons to the children. It would appear however that the putting in practice of the theoretical lessons in personal hygiene is not sufficiently and symtematically encouraged, a superficial display of cleanliness being apparently cultivated.

Infant care and Management.—An experimental school for the teaching of Housewifery, including sick nursing and the management of infants has been established at Pentre.

Girls in the sixth standard are selected for the tuition, and a 10 weeks course is provided for each batch of girls.

All branches of housewifery are taught practically, including washing, ironing, cooking, the laying of tables, the use of the sewing machine, the making of curtains, the upholstering of chairs, the cleaning of rooms, sinks, lavatories, and household utensils, and particular stress is laid on the importance of cultivating methodical and cleanly habits.

The school consists of two model flats, each containing a kitchen, sitting room, bedroom, and pantry, and a large room used for teaching purposes as well as a laundry with an ironing room annexed. A model representing a baby reposes in a cot in one bedroom, and is each day entirely in the charge of one or other of the girls.

The school has the appearance of being well conducted, but no doubt the teacher would find a better response to her efforts from somewhat older girls.

The subject however is being taken up in the evening schools, and since the great majority of girls leave school immediately they attain the age of 13, an opportunity will thus be given them to continue to take advantage of such useful instruction, of which it is hoped the girls and young women will fully avail themselves.

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6 i (ii) The Methods and Results of Physical or Breathing exercises in the Schools.

The methods of carrying out these exercises remained the same as in the previous year. Generally speaking they are not carried out with sufficient thoroughness or apprecia-

tion of their importance although a certain amount of improvement is manifest owing to the action of the Education Committee in providing facilities for the teachers to obtain instruction in the subject during the summer vacation. The methods in vogue, although perhaps not producing the best possible results, have without doubt a beneficial effect on the physical fitness of the children.

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6 i (iii) Open Air Schools.

The Medical Inspection records so far have not disclosed a sufficient number of children requiring such special provision to warrant an official representation being made to the Education Committee on the subject, especially as other affairs of a more urgent nature in connection with medical inspection at present fully occupy their attention.

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6 (j) Miscellaneous work in connection with the Schools.

During the year 14 male and 18 female candidates for pupil teacherships were medically examined. One of the former was rejected, the cause for rejection being double ear disease and defective hearing.